STIC Search Report
EIC 1700

USPTO

STIC Database Tracking Number: 186155

TO: Jill M Gray **Location: REM 10C64** **Art Unit : 1774** **April 21, 2006** **Case Serial Number: 09/857600**	**From: Les Henderson** **Location: EIC 1700** **REMSEN 4B30** **Phone: 571/272-2538** **Leslie.Henderson@uspto.gov**

Search Notes

sira
Search and Information Resources Administration

STIC Search Results Feedback Form

USPTO

EIC17000

Questions about the scope or the results of the search? Contact ***the EIC searcher or contact:***

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form

- *I am an examiner in Workgroup:* ☐ *Example: 1713*
- *Relevant prior art **found**, search results used as follows:*
  - ☐ 102 rejection
  - ☐ 103 rejection
  - ☐ Cited as being of interest.
  - ☐ Helped examiner better understand the invention.
  - ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
  (journal articles, conference proceedings, new product announcements etc.)

- *Relevant prior art **not found:***
  - ☐ Results verified the lack of relevant prior art (helped determine patentability).
  - ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28

SEQ AN-1774

Access DB# 186155

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Jill Gray Examiner #: 66985 Date: 4/19/06
Art Unit: 1774 Phone Number 30 2-1524 Serial Number: 09/856,660
Mail Box and Bldg/Room Location: 10C64 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Steel Wire with Bright Looking Surface

Inventors (please provide full names): Adriaensen, Ludo ; Leplae, Alain ; Vandewalle, Gerard ; Van Lerberghe, Gilbert

Earliest Priority Filing Date: 12/15/98

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Pls search claims in particular steel wire w/ polyester coating. Also pls note claim 31.

Thank you Gray

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STAFF USE ONLY	Type of Search		Vendors and cost where applicable	
Searcher: YH	NA Sequence (#)		STN	$1199.71
Searcher Phone #:	AA Sequence (#)		Dialog	
Searcher Location:	Structure (#)		Questel/Orbit	
Date Searcher Picked Up:	Bibliographic	✓	Dr.Link	
Date Completed: 4/21/06	Litigation		Lexis/Nexis	
Searcher Prep & Review Time: 30	Fulltext		Sequence Systems	
Clerical Prep Time: 10	Patent Family		WWW/Internet	
Online Time: 310	Other		Other (specify)	

PTO-1590 (8-01)

09/857,600

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.-19. Cancelled

20. (Previously Presented) A method of manufacturing a coated steel wire having a bright looking surface, said method comprising the following steps:

(a) providing a steel core;

(b) coating said steel core with an intermediate coating layer;

(c) drawing said coated steel core so that said intermediate coating obtains a bright looking surface;

(d) obtaining a transparent thermoplastic polyester;

(e) further coating said steel core with a bright intermediate coating layer with said polyester, wherein said polyester is immediately disposed on said intermediate coating layer.

21. (Currently Amended) A method of manufacturing a coated steel wire having a bright looking surface, said method comprising the following steps:

(a) providing a steel core;

(b) coating said steel core with an intermediate coating layer;

(c) drawing said coated steel core so that said intermediate coating obtains a bright looking surface;

(d) obtaining a transparent thermoplastic polyester;

(e) further coating said steel core with a bright intermediate coating layer with said polyester, wherein said polyester is immediately disposed on said intermediate coating layer;

wherein ~~said~~ **the step of** coating with said intermediate coating layer is done by a hot dip operation.

22. (Previously Presented) A method according to claim 20, said method further comprising the step of adding coloring agent to said polyester.

23. (Previously Presented) A method according to claim 20, wherein said drawing step (c) is a wet drawing step.

24. (Previously Presented) A method according to claim 20, wherein said further coating with a polyester is done by an extrusion process.

25.-30. (Cancelled)

31. (Previously Presented) A steel wire having a coating having a bright looking surface, comprising:

a drawn wire, said drawn wire including a steel core covered with an intermediate coating layer, said intermediate coating layer having a bright looking surface; and

a polyester coating immediately upon said intermediate coating, said polyester being transparent;

wherein said polyester is a thermoplastic polyester selected from the group consisting of polyethylene terephtalate, polybutylene terephthalate and polyethylene naphthenate; and

wherein said intermediate coating is a coating comprising at least one of a copper-tin sulfate coating and a copper-sulfate coating.

32. (Previously Presented) A method of manufacturing a coated steel wire having a bright looking surface, said method comprising:

(a) providing a steel core;

(b) coating said steel core with an intermediate coating layer;

(c) drawing said coated steel core to obtain a bright looking surface; and

(d) immediately depositing on said intermediate coating layer a transparent polyester to coat said intermediate coating layer of said steel core.

33. (Currently Amended) A method of manufacturing a coated steel wire having a bright looking surface, said method comprising:

(a) providing a steel core;

(b) coating said steel core with an intermediate coating layer;

(c) drawing said coated steel core to obtain a bright looking surface; and

(d) immediately depositing on said intermediate coating layer a transparent polyester to coat said intermediate coating layer of said steel core;

wherein ~~said~~ **the step of** coating said steel core with said intermediate coating layer is performed by a hot dip operation.

34. (Previously Presented) A method according to claim 32, wherein said method further comprises adding coloring agent to said polyester.

35. (Previously Presented) A method according to claim 32, wherein said bright looking surface is obtained by wet drawing.

36. (Previously Presented) A method according to claim 32, wherein depositing the polyester is performed by an extrusion process.

37. (Previously Presented) A method according to claim 20,

further comprising, after completing at least one of steps (c) and (e), quantifying the degree of brightness based on at least one of the peripheral roughness of the steel wire and the L-value of the steel wire.

38. (Previously Presented) A method according to claim 32,

further comprising, after completing at least one of the actions (c) and (d), quantifying the degree of brightness based on at least one of the peripheral roughness of the steel wire and the L-value of the steel wire.

39. (Cancelled)

40. (Cancelled)

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=> d his ful

     (FILE 'HOME' ENTERED AT 08:37:16 ON 21 APR 2006)

     FILE 'HCAPLUS' ENTERED AT 08:37:34 ON 21 APR 2006
                E VAN LOO G/AU
                E VAN LOO G?/AU
L1             33 SEA ABB=ON  PLU=ON  VAN LOO G?/AU
                E VANDEWALLE G?/AU
L2             10 SEA ABB=ON  PLU=ON  VANDEWALLE G?/AU
                E LEPAE A/AU
                E LEPLAE A/AU
L3              3 SEA ABB=ON  PLU=ON  LEPLAE A?/AU
                E ADRIAENSEN L/AU
L4             24 SEA ABB=ON  PLU=ON  ADRIAENSEN L?/AU
L5              1 SEA ABB=ON  PLU=ON  L1 AND L2 AND L3 AND L4
                D ALL
                SEL RN

     FILE 'REGISTRY' ENTERED AT 08:42:37 ON 21 APR 2006
L6              8 SEA ABB=ON  PLU=ON  (12597-69-2/BI OR 25038-59-9/BI OR
                  26062-94-2/BI OR 7440-02-0/BI OR 7440-31-5/BI OR
                  7440-50-8/BI OR 7440-66-6/BI OR 9002-86-2/BI)
                D SCAN
                E 12597-69-2/RN
L7              1 SEA ABB=ON  PLU=ON  12597-69-2/RN
                D SCAN
                E POLYESTER/PCT
L8         192496 SEA ABB=ON  PLU=ON  POLYESTER/PCT
                E 25038-94-2/RN
                D SCAN
                D CN
                E POLYETHYLENE TEREPHTALATE/CN
                E POLYETHYLENE TEREPHTHALATE/CN
                D RN
L9              1 SEA ABB=ON  PLU=ON  25038-59-9/RN
                D SCAN
                D CN
                E 26062-94-2/RN
L10             1 SEA ABB=ON  PLU=ON  26062-94-2/RN
                D SCAN
                D CN
                E POLYETHYLENE NAPHENATE/CN
                E POLYETHYLENENAPHENATE/CN
                E POLYETHYLENE NAPHTHENATE/CN
                E POLYETHYLENENAPHTHENATE/CN
                E POLYETHYLENE, NAPHTHENATE/CN
                E POLYETHYLENE-NAPHTHENATE/CN
                E NAPHTHENATE/CN
                E NAPHTHENATE/CNS
L11           173 SEA ABB=ON  PLU=ON  NAPHTHENATE/CNS
                E POLYETHYLENE/CNS
L12          8301 SEA ABB=ON  PLU=ON  POLYETHYLENE/CNS
L13             0 SEA ABB=ON  PLU=ON  L12 AND L11
                E NAPHTHENATE/CN
L14             1 SEA ABB=ON  PLU=ON  NAPHTHENE/CN
                D SCAN

     FILE 'HCAPLUS' ENTERED AT 09:09:14 ON 21 APR 2006
L15             9 SEA ABB=ON  PLU=ON  POLYETHYLENE(A)NAPHTHENATE
                D SCAN

     FILE 'REGISTRY' ENTERED AT 09:19:26 ON 21 APR 2006
                E 24968-11-4/RN
L16             1 SEA ABB=ON  PLU=ON  24968-11-4/RN
                D SCAN
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                D CN
                E 25038-59-9/RN
                D SCAN
                D CN
L17           1 SEA ABB=ON  PLU=ON  25230-87-9/RN
                D SCAN
                D CRN STR
L18        1671 SEA ABB=ON  PLU=ON  1141-38-4/CRN
L19       34565 SEA ABB=ON  PLU=ON  107-21-1/CRN
L20         596 SEA ABB=ON  PLU=ON  L18 AND L19
                E 7440-50-8/RN
L21           1 SEA ABB=ON  PLU=ON  7440-50-8/RN
                D SCAN
                D SCAN
                E 7440-31-5/RN
L22           1 SEA ABB=ON  PLU=ON  7440-31-5/RN
                D SCAN
                E COPPER TIN SULFATE/CN
L23           2 SEA ABB=ON  PLU=ON  ("COPPER TIN SULFATE (CU0.1SN0.9(HS
                  O4)2)"/CN OR "COPPER TIN SULFATE (CU0.1SN0.9(SO4))"/CN)

                D SCAN
                E COPPER SULFATE/CN
L24          17 SEA ABB=ON  PLU=ON  ("COPPER SULFATE"/CN OR "COPPER
                  SULFATE (1:1)"/CN OR "COPPER SULFATE (CU(HSO4)2)"/CN
                  OR "COPPER SULFATE (CU2(OH)2(SO4))"/CN OR "COPPER
                  SULFATE (CU2O(SO4))"/CN OR "COPPER SULFATE (CU2SO4)"/CN
                   OR "COPPER SULFATE (CU3(OH)4(SO4))"/CN OR "COPPER
                  SULFATE (CU3SSO4) PENTAHYDRATE"/CN OR "COPPER SULFATE
                  (CU3O2(SO4))"/CN OR "COPPER SULFATE (CU4(OH)6(SO4))"/CN
                   OR "COPPER SULFATE (CU4O3(SO4))"/CN OR "COPPER
                  SULFATE (CUSO4)"/CN OR "COPPER SULFATE (CUSO4)
                  HEPTAHYDRATE"/CN OR "COPPER SULFATE (CUSO4) MONOHYDRATE
                  "/CN OR "COPPER SULFATE (CUSO4) PENTA(HYDRATE-D2)"/CN
                  OR "COPPER SULFATE (CUSO4) PENTAHYDRATE"/CN OR "COPPER
                  SULFATE (CUSO4) TRIHYDRATE"/CN OR "COPPER SULFATE
                  DIHYDRATE"/CN OR "COPPER SULFATE HEPTAHYDRATE"/CN OR
                  "COPPER SULFATE PENTAHYDRATE"/CN OR "COPPER SULFATE
                  TETRAHYDRATE"/CN OR "COPPER SULFATE TRIHYDRATE"/CN)

     FILE 'HCAPLUS' ENTERED AT 10:48:47 ON 21 APR 2006
                E WIRE/CT
                E E3+ALL
L25      211773 SEA ABB=ON  PLU=ON  L7
L26       15372 SEA ABB=ON  PLU=ON  (L25 OR STEEL#)(2A)WIRE#
L27        1394 SEA ABB=ON  PLU=ON  L26(L)CORE#
L28        1713 SEA ABB=ON  PLU=ON  (BRIGHT OR SHINY)(2A)(SURFACE OR
                  EXTERIOR)
L29          20 SEA ABB=ON  PLU=ON  L28 AND L26
                D SCAN TI
L30           1 SEA ABB=ON  PLU=ON  L29 AND L1
                D SCAN
L31           0 SEA ABB=ON  PLU=ON  L29 AND L27
L32      318540 SEA ABB=ON  PLU=ON  L8
                E THERMOPLASTIC/CT
                E E12+ALL
L33        8298 SEA ABB=ON  PLU=ON  (L32 OR POLYESTER)(2A)(THERMOPLASTI
                  C OR THERMO(W)PLASTIC)
L34         110 SEA ABB=ON  PLU=ON  L33(3A)(CLEAR OR TRANSPARENT)
L35         462 SEA ABB=ON  PLU=ON  L33 AND (CLEAR OR TRANSPARENT)
L36         249 SEA ABB=ON  PLU=ON  L35 AND (COAT? OR FILM?)
L37           1 SEA ABB=ON  PLU=ON  L36 AND L29
                D SCAN
L38        3856 SEA ABB=ON  PLU=ON  L(A)VALUE
L39           0 SEA ABB=ON  PLU=ON  L26 AND L38
L40          17 SEA ABB=ON  PLU=ON  L38 AND WIR?
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              D SCAN
L41             0 SEA ABB=ON  PLU=ON  L40 AND L26
L42         77396 SEA ABB=ON  PLU=ON  L9
              E TEREPHTHALTE/CT
L43         81992 SEA ABB=ON  PLU=ON  POLYETHYLENE?(A)TEREPHTHALATE? OR
              L42
L44         13959 SEA ABB=ON  PLU=ON  L10
L45         15009 SEA ABB=ON  PLU=ON  POLYBUTYLENE?(A)TEREPHTHALATE? OR
              L44
L46          4004 SEA ABB=ON  PLU=ON  L16

      FILE 'REGISTRY' ENTERED AT 11:27:44 ON 21 APR 2006
              D SCAN L16
              D SCAN L17

      FILE 'HCAPLUS' ENTERED AT 11:28:43 ON 21 APR 2006
L47           3031 SEA ABB=ON  PLU=ON  L17
L48           3695 SEA ABB=ON  PLU=ON  L20
L49           4736 SEA ABB=ON  PLU=ON  POLYETHYLENE?(A)NAPHTHENATE? OR
                L46 OR L47 OR L48
L50             45 SEA ABB=ON  PLU=ON  L26 AND (L43 OR L45 OR L49)
                D SCAN TI
L51          11606 SEA ABB=ON  PLU=ON  (COAT? OR FILM? OR COVER?)(3A)(L43
                OR L45 OR L49)
L52              2 SEA ABB=ON  PLU=ON  L27 AND L51
                D SCAN
L53             10 SEA ABB=ON  PLU=ON  L26 AND L51
                D SCAN
L54              1 SEA ABB=ON  PLU=ON  L23
                D SCAN
L55         507284 SEA ABB=ON  PLU=ON  L21
L56                QUE ABB=ON  PLU=ON  L55 OR COPPER OR CU
L57          94092 SEA ABB=ON  PLU=ON  L22
L58                QUE ABB=ON  PLU=ON  L57 OR TIN OR SN
L59             13 SEA ABB=ON  PLU=ON  L54 OR ((L56(A)L58)(A)(SULPHATE OR
                SULFATE OR SO4))
L60          24064 SEA ABB=ON  PLU=ON  L24
L61          29296 SEA ABB=ON  PLU=ON  L60 OR (COPPER OR CU)(A)(SULFATE
                OR SULPHATE OF SO4)
L62            122 SEA ABB=ON  PLU=ON  L60(3A)(COAT? OR FILM? OR COVER?)
L63            345 SEA ABB=ON  PLU=ON  L61(3A)(COAT? OR FILM? OR COVER?)

      FILE 'REGISTRY' ENTERED AT 13:00:07 ON 21 APR 2006
              E 25038-59-9/RN
              D SCAN

      FILE 'HCAPLUS' ENTERED AT 13:01:14 ON 21 APR 2006
L64             45 SEA ABB=ON  PLU=ON  L26 AND (L43 OR L45 OR L49)
L65              0 SEA ABB=ON  PLU=ON  L64 AND (L59 OR L61)
L66             39 SEA ABB=ON  PLU=ON  L26 AND (L59 OR L61)
                D SCAN TI
                D L66 39
L67              0 SEA ABB=ON  PLU=ON  L64 AND L66
L68            221 SEA ABB=ON  PLU=ON  L46 AND (L56 OR L58)
L69            182 SEA ABB=ON  PLU=ON  L68 AND (COAT? OR FILM? OR COVER?)
L70             86 SEA ABB=ON  PLU=ON  POLYETHYLENENAPHTHALATE?
LL71          4780 SEA ABB=ON  PLU=ON  L49 OR L70 OR POLYETHYLENE(A)NAPHTH
                ALTE
L72             45 SEA ABB=ON  PLU=ON  L26 AND (L43 OR L45 OR L71)
                D QUE
L73             10 SEA ABB=ON  PLU=ON  L72 AND (L56 OR L58)
                D QUE L56
                D QUE L58
                D QUE L59
                D QUE L61
L74              0 SEA ABB=ON  PLU=ON  L72 AND (L59 OR L61)
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L75           8 SEA ABB=ON  PLU=ON  L73 AND (COAT? OR FILM? OR COVER?)
                D QUE L8
                D QUE L36
L76           2 SEA ABB=ON  PLU=ON  L26 AND L36
                D SCAN
                D QUE
L77          11 SEA ABB=ON  PLU=ON  L26 AND L33
                D QUE
L78      479935 SEA ABB=ON  PLU=ON  L32 OR POLYESTER
L79         264 SEA ABB=ON  PLU=ON  L26 AND L78
L80         147 SEA ABB=ON  PLU=ON  L79 AND (COAT? OR FILM? OR COVER?)
L81           5 SEA ABB=ON  PLU=ON  L80 AND (CLEAR OR TRANSPARENT? OR
                SEETHROUGH OR SEE(A)THROUGH OR COLOR OR COLOUR)
                D SCAN
L82           1 SEA ABB=ON  PLU=ON  L81 AND L1
                D QUE L29
                D QUE L50
                D QUE L59
                D QUE L52
L83          48 SEA ABB=ON  PLU=ON  L29 OR L52 OR L53 OR L73 OR (L75
                OR L76 OR L77) OR L81
L84           1 SEA ABB=ON  PLU=ON  L83 AND L1
                D ALL
L85      161391 SEA ABB=ON  PLU=ON  HOT(A)(DIP# OR DIPPED OR DIPPING)
                OR WET(A)DRAW? OR EXTRU?
L86         794 SEA ABB=ON  PLU=ON  L26 AND L85
L87          12 SEA ABB=ON  PLU=ON  L86 AND L83
                D SCAN
L88          48 SEA ABB=ON  PLU=ON  L87 OR L83
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=> => d que
L7            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  12597-69-2/RN
L8       192496 SEA FILE=REGISTRY ABB=ON  PLU=ON  POLYESTER/PCT
L9            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  25038-59-9/RN
L10           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  26062-94-2/RN
L16           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  24968-11-4/RN
L17           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  25230-87-9/RN
L18        1671 SEA FILE=REGISTRY ABB=ON  PLU=ON  1141-38-4/CRN
L19       34565 SEA FILE=REGISTRY ABB=ON  PLU=ON  107-21-1/CRN
L20         596 SEA FILE=REGISTRY ABB=ON  PLU=ON  L18 AND L19
L21           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  7440-50-8/RN
L22           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  7440-31-5/RN
L25      211773 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7
L26       15372 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L25 OR STEEL#)(2A)WIR
                E#
L27        1394 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L26(L)CORE#
L28        1713 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (BRIGHT OR SHINY)(2A)(
                SURFACE OR EXTERIOR)
L29          20 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L28 AND L26
L32      318540 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L8
L33        8298 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L32 OR POLYESTER)(2A)
                (THERMOPLASTIC OR THERMO(W)PLASTIC)
L35         462 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L33 AND (CLEAR OR
                TRANSPARENT)
L36         249 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L35 AND (COAT? OR
                FILM?)
L42       77396 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9
L43       81992 SEA FILE=HCAPLUS ABB=ON  PLU=ON  POLYETHYLENE?(A)TEREPH
                THALATE? OR L42
L44       13959 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L10
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L45       15009 SEA FILE=HCAPLUS ABB=ON  PLU=ON  POLYBUTYLENE?(A)TEREPH
                THALATE? OR L44
L46        4004 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L16
L47        3031 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L17
L48        3695 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L20
L49        4736 SEA FILE=HCAPLUS ABB=ON  PLU=ON  POLYETHYLENE?(A)NAPHTH
                ENATE? OR L46 OR L47 OR L48
L51       11606 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (COAT? OR FILM? OR
                COVER?)(3A)(L43 OR L45 OR L49)
L52           2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L27 AND L51
L53          10 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L26 AND L51
L55      507284 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L21
L56             QUE  ABB=ON  PLU=ON  L55 OR COPPER OR CU
L57       94092 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L22
L58             QUE  ABB=ON  PLU=ON  L57 OR TIN OR SN
L70          86 SEA FILE=HCAPLUS ABB=ON  PLU=ON  POLYETHYLENENAPHTHALAT
                E?
L71        4780 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L49 OR L70 OR
                POLYETHYLENE(A)NAPHTHALTE
L72          45 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L26 AND (L43 OR L45
                OR L71)
L73          10 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L72 AND (L56 OR L58)
L75           8 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L73 AND (COAT? OR
                FILM? OR COVER?)
L76           2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L26 AND L36
L77          11 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L26 AND L33
L78      479935 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L32 OR POLYESTER
L79         264 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L26 AND L78
L80         147 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L79 AND (COAT? OR
                FILM? OR COVER?)
L81           5 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L80 AND (CLEAR OR
                TRANSPARENT? OR SEETHROUGH OR SEE(A)THROUGH OR COLOR
                OR COLOUR)
L83          48 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L29 OR L52 OR L53 OR
                L73 OR (L75 OR L76 OR L77) OR L81
L85      161391 SEA FILE=HCAPLUS ABB=ON  PLU=ON  HOT(A)(DIP# OR DIPPED
                OR DIPPING) OR WET(A)DRAW? OR EXTRU?
L86         794 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L26 AND L85
L87          12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L86 AND L83
L88          48 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L87 OR L83


=> d l88 1-48 ibib abs hitstr hitind

L88  ANSWER 1 OF 48  HCAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:        2005:1048904  HCAPLUS
DOCUMENT NUMBER:         143:327660
TITLE:                   Poly(phenylene sulfide) fibers with increased
                         tensile strength and bending abrasion
                         resistance, comprising fibers consisting of
                         poly(phenylene sulfide) compositions
                         containing thermoplastic
                         polyesters and industrial fabrics
                         therefrom
INVENTOR(S):             Uchiyama, Yusuke; Kinoshita, Akira
PATENT ASSIGNEE(S):      Toray Industries, Inc., Japan; Toray
                         Monofilament Co., Ltd.
SOURCE:                  Jpn. Kokai Tokkyo Koho, 14 pp.
                         CODEN: JKXXAF
DOCUMENT TYPE:           Patent
LANGUAGE:                Japanese
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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JP 2005264349	A2	20050929	JP 2004-74780	2004 0316

PRIORITY APPLN. INFO.: JP 2004-74780 2004 0316

AB The fibers (A1) consist of a composition comprising 90-60% poly(phenylene sulfide) (I) and 10-40% **thermoplastic polyesters**, and show number of reciprocating abrasion cycles required for breakage of the yarns 9000-20,000, as detd by the bending abrasion resistance testing method of JIS L-1095-7.10.2B [ϕ 3.0-mm abrasion element [hard **steel wire** (SWP-SF)], distance between 2 free rolls 70 mm, load 0.196 cN/dtex, number of reciprocating cycles 105 turns/min, reciprocating stroke 25 mm, 10 samples], and show number of reciprocating bending fatigue cycles required for yarn breakage 150-500, as determined by the bending fatigue resistance testing method of JIS P-8115 [MIT bending fatigue testing apparatus, load 0.221 cN/dtex, number of oscillation 175 turns/min, oscillation angle (each of right and left) 135°, bending radius of curvature (each of right and left) 0.38 ± 0.03 mm, 10 samples], or the fibers comprise above A1 fibers having I showing melt flow rate (MFR) 100-250 g/10 min, as measured by the method of ASTM D 1238-86 (at 316°, orifice diameter 2.095 mm, orifice length 8.00 mm, load 5 kg), and essentially have a linear mol. structure. The industrial fabrics partially or wholly comprise above A1 fibers. A composition containing 80% I (E 2080) with MFR 100 g/10 min and 20% poly(ethylene terephthalate) was fed to an **extruder** with 2 kneading zones at **extrusion** temperature 320°, **extruded** through a die, and quenched in ice water to give guts with a fixed structure. The guts were cut to form pellets, dried, melted at 320°, passed through a spinning pack, melt spun through a spinneret, cooled in H2O at 80°, drawn to draw ratio 3.8 under saturated steam at 1.96 kPa, subsequently drawn to draw ratio 1.2 in hot air at 150°, and relaxed at 140° to give monofilaments with tensile strength 2.9 cN/dtex, elongation 46.9%, knot strength 2.5 cN/dtex, pulling strength 3.4 cN/dtex, and showing number of bending abrasion cycles required for yarn breakage 14037, and exhibiting number of bending fatigue cycles required for yarn breakage 315, and showing tensile strength retention 100%, on heat-treating the monofilaments for 40 days under steam at 138° and 0.294 MPa.

IC ICM D01F006-76
ICS D01F006-94; D03D015-00

CC 40-2 (Textiles and Fibers)

IT Polythiophenylenes
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(fiber; poly(phenylene sulfide) fibers with increased tensile strength and bending abrasion resistance, comprising fibers consisting of poly(phenylene sulfide) compns. containing **thermoplastic polyesters** and industrial fabrics therefrom)

IT Abrasion-resistant materials
Heat-resistant materials
Textiles
(poly(phenylene sulfide) fibers with increased tensile strength and bending abrasion resistance, comprising fibers consisting of poly(phenylene sulfide) compns. containing **thermoplastic polyesters** and industrial fabrics therefrom)

IT Polyesters, uses
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
(poly(phenylene sulfide) fibers with increased tensile strength

and bending abrasion resistance, comprising fibers consisting of poly(phenylene sulfide) compns. containing **thermoplastic polyesters** and industrial fabrics therefrom)

IT Synthetic polymeric fibers, uses
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(polythiophenylenes; poly(phenylene sulfide) fibers with increased tensile strength and bending abrasion resistance, comprising fibers consisting of poly(phenylene sulfide) compns. containing **thermoplastic polyesters** and industrial fabrics therefrom)

IT 26125-40-6, 1,4-Dichlorobenzene-sodium sulfide copolymer
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(assumed monomers, fiber; poly(phenylene sulfide) fibers with increased tensile strength and bending abrasion resistance, comprising fibers consisting of poly(phenylene sulfide) compns. containing **thermoplastic polyesters**)

IT 25212-74-2, E 2080
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(fiber; poly(phenylene sulfide) fibers with increased tensile strength and bending abrasion resistance, comprising fibers consisting of poly(phenylene sulfide) compns. containing **thermoplastic polyesters** and industrial fabrics therefrom)

IT 25038-59-9, uses
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
(poly(phenylene sulfide) fibers with increased tensile strength and bending abrasion resistance, comprising fibers consisting of poly(phenylene sulfide) compns. containing **thermoplastic polyesters** and industrial fabrics therefrom)

L88 ANSWER 2 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:692093 HCAPLUS
DOCUMENT NUMBER: 143:155028
TITLE: Coated wire comprising a metal core and a thermoplastic coating having a matte appearance and process for making coated wire
INVENTOR(S): Adriaensen, Ludo; Bostoen, Joos; Leplae, Alain; Vandewalle, Gerard
PATENT ASSIGNEE(S): N. V. Bekaert S. A., Belg.
SOURCE: Eur. Pat. Appl., 9 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1559483	A1	20050803	EP 2004-100356	2004 0202

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

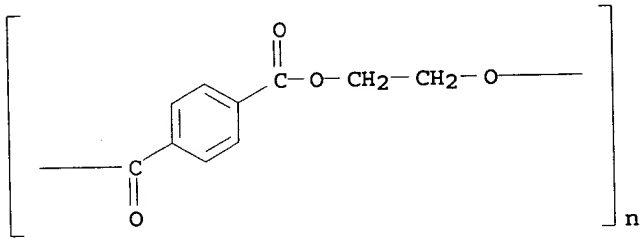
PRIORITY APPLN. INFO.: EP 2004-100356 2004 0202

AB The coated wire comprises a metal **core** and a thermoplastic coating. The thermoplastic coating has a 60° gloss (ISO 2813) <45. The thermoplastic coating has preferably a surface roughness (Ra value) >0.15 μm. **Steel wire** has a C content 0.50-0.70% and is characterized by a tensile strength 1600-1800 N/mm2. The **steel wire** is coated with a Zn-Al coating and a PET coating on top of this Zn-Al coating.

IT **25038-59-9**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(**coated** wire comprising a metal core and thermoplastic coating having a matte appearance)

RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IC ICM B05D003-12
ICS B05D007-20; B60S001-38

CC 42-10 (Coatings, Inks, and Related Products)
Section cross-reference(s): 55

ST thermoplastic matte coating wire; PET coated **steel wire** reinforcement wiper blade

IT 12597-69-2, **Steel**, uses 12635-57-3 **25038-59-9**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(**coated wire** comprising a metal **core** and thermoplastic coating having a matte appearance)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L88 ANSWER 3 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:281409 HCAPLUS
DOCUMENT NUMBER: 142:358020
TITLE: Wire interconnects for connected flexible photovoltaic cells
INVENTOR(S): Eckert, Robert; Gaudiana, Russell; Li, Lian; Montello, Alan; Montello, Edmund
PATENT ASSIGNEE(S): Konarka Technologies, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 58 pp., Cont.-in-part of U.S. Ser. No. 57,394.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 22
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005067006	A1	20050331	US 2003-351298	2003

					0124
US 6924427	B2	20050802			
US 2003140959	A1	20030731	US 2002-57394		2002 0125
US 6706963	B2	20040316			
CN 1541425	A	20041027	CN 2002-815625		2002 0531
US 2005257827	A1	20051124	US 2005-145333		2005 0603
US 2005268962	A1	20051208	US 2005-145128		2005 0603
US 2006076048	A1	20060413	US 2005-144272		2005 0603
US 2006005876	A1	20060112	US 2005-221439		2005 0908
PRIORITY APPLN. INFO.:			US 2002-351691P	P	2002 0125
			US 2002-57394	A2	2002 0125
			US 2002-368832P	P	2002 0329
			US 2002-400289P	P	2002 0731
			US 2002-427642P	P	2002 1119
			AT 2001-1231	A	2001 0807
			US 2002-353138P	P	2002 0201
			WO 2002-AT166	W	2002 0531
			US 2002-390071P	P	2002 0620
			US 2002-396173P	P	2002 0716
			WO 2002-SE2049	W	2002 1108
			WO 2002-DE4563	W	

		2002 1212
US 2003-350800	A2	2003 0124
US 2003-350812	A2	2003 0124
US 2003-350912	A2	2003 0124
US 2003-350913	A2	2003 0124
US 2003-350919	A2	2003 0124
US 2003-351249	A2	2003 0124
US 2003-351250	A2	2003 0124
US 2003-351251	A2	2003 0124
US 2003-351260	A2	2003 0124
US 2003-351264	A2	2003 0124
US 2003-351265	A2	2003 0124
US 2003-351298	A2	2003 0124
US 2003-351607	A2	2003 0124
WO 2003-DE385	W	2003 0210
US 2003-258709	A2	2003 0227
US 2003-395823	A2	2003 0324

WO 2003-AT131	W	2003 .0506
US 2003-258708	A2	2003 0522
WO 2003-DE1867	W	2003 0605
WO 2003-DE2463	W	2003 0722
US 2003-495302P	P	2003 0815
US 2003-723554	A2	2003 1126
US 2003-526373P	P	2003 1201
US 2004-546818P	P	2004 0219
US 2004-498484	A2	2004 0614
US 2004-486116	A2	2004 0713
US 2004-589423P	P	2004 0720
US 2004-590312P	P	2004 0722
US 2004-590313P	P	2004 0722
US 2004-897268	A2	2004 0722
US 2004-504091	A2	2004 0811
US 2004-494560	A2	2004 1117
US 2004-276	A2	

		2004 1130
US 2004-637844P	P	2004 1220
US 2004-638070P	P	2004 1221
US 2005-33217	A2	2005 0110
US 2005-663985P	P	2005 0321
US 2005-664114P	P	2005 0321
US 2005-664298P	P	2005 0322
US 2005-664336P	P	2005 0323
US 2005-258713	A2	2005 0516
US 2005-515159	A2	2005 0621
US 2005-509935	A2	2005 0819
US 2005-522862	A2	2005 0906

AB A method to connect a number of photovoltaic cells in a photovoltaic module is presented. The method entails: providing a first base material with a conductive layer, disposing a photosensitized interconnected nanoparticle material and a charge carrier material on the conductive layer, and providing a connecting wire. A second base material with a conductive layer is then joined to the first base material such that the first and second conductive layers are in elec. contact with the wire. One or more wires with an adhesive strip then serve as elec. conductive connectors between the photovoltaic cells.

IT **7440-31-5**, **Tin**, uses **7440-50-8**, **Copper**, uses **24968-11-4**, Polyethylene naphthalate **25038-59-9**, PET (polyester), uses **25230-87-9**
RL: DEV (Device component use); USES (Uses)
(**wire** interconnects for connected flexible photovoltaic cells)

RN 7440-31-5 HCAPLUS

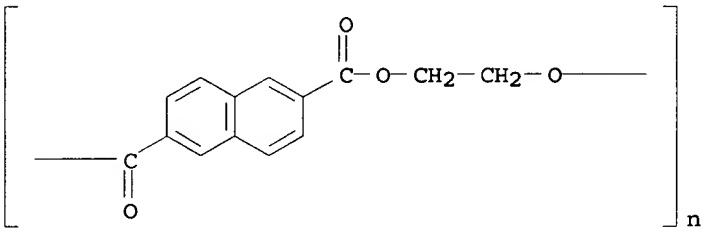
CN Tin (8CI, 9CI) (CA INDEX NAME)

Sn

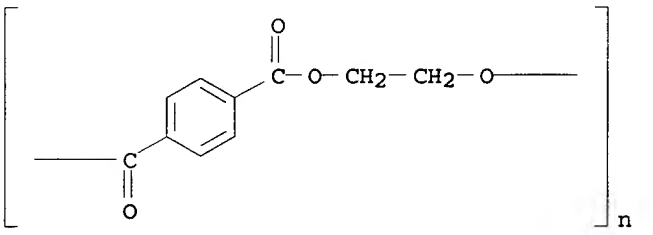
RN 7440-50-8 HCAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

RN 24968-11-4 HCAPLUS
CN Poly(oxy-1,2-ethanediyloxycarbonyl-2,6-naphthalenediylcarbonyl) (9CI) (CA INDEX NAME)



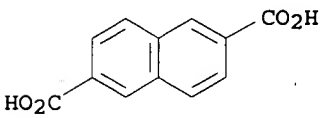
RN 25038-59-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 25230-87-9 HCAPLUS
CN 2,6-Naphthalenedicarboxylic acid, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 1141-38-4
CMF C12 H8 O4



CM 2

CRN 107-21-1
CMF C2 H6 O2

HO—CH_2—CH_2—OH

IC ICM H01L031-00
INCL 136244000; 438080000
CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 76
IT 18282-10-5, **Tin** oxide (SnO2)
RL: DEV (Device component use); USES (Uses)
(fluorinated, platinum-**coated**; wire interconnects for connected flexible photovoltaic cells)
IT 7782-41-4, Fluorine, uses
RL: MOA (Modifier or additive use); USES (Uses)
(**tin** oxide doped with; wire interconnects for connected flexible photovoltaic cells)
IT 64-17-5, Ethanol, uses 69-89-6D, derivs. 75-58-1 105-58-8, Ethyl carbonate 108-32-7, Propylene carbonate 109-97-7D, 1H-Pyrrole, derivs. 110-67-8, 3-Methoxy propionitrile 603-34-9, Triphenylamine 629-03-8, 1,6-Dibromo hexane 631-40-3, Tetrapropylammonium iodide 1312-81-8, Lanthanum oxide 1314-13-2, Zinc oxide, uses 1314-23-4, Zirconium oxide, uses 1314-35-8, Tungsten oxide, uses 1332-29-2, **Tin** oxide 6156-37-2, 4-Diphenyl aminobenzoic acid 7429-90-5, Aluminum, uses 7439-89-6D, Iron, transition metal complexes 7439-93-2D, Lithium, complexes with poly(4-vinylpyridine) or with PEO 7440-04-2D, Osmium, transition metal complexes 7440-18-8D, Ruthenium, transition metal complexes **7440-31-5**, **Tin**, uses 7440-32-6, Titanium, uses **7440-50-8**, **Copper**, uses 7440-69-9, Bismuth, uses 7447-41-8, Lithium chloride (LiCl), uses 7550-35-8, Lithium bromide (LiBr) 7553-56-2, Iodine, uses 7647-01-0, Hydrogen chloride, uses 7681-11-0, Potassium iodide, uses 7732-18-5, Water, uses 7789-17-5, Cesium iodide 9006-26-2, Ethylene maleic anhydride copolymer 10377-51-2, Lithium iodide (LiI) 12597-68-1, Stainless **steel**, uses 12627-00-8, Niobium oxide 12738-76-0, Terbium oxide 13463-67-7, Titanium oxide, uses 14900-04-0, Triiodide **24968-11-4**, Polyethylene naphthalate **25038-59-9**, PET (polyester), uses 25069-75-4 **25230-87-9** 25232-41-1D, Poly(4-vinylpyridine), lithium complexes 25322-68-3D, PEO, lithium complexes 26856-69-9, Methoxy propionitrile 28516-43-0, Surlyn 1702 30304-58-6, Methyl benzimidazole 41246-22-4, 3-Methoxybutyronitrile 50926-11-9, Indium **tin** oxide 59763-75-6, Tantalum oxide 65039-05-6 68007-08-9 118676-08-7, tert-Butyl pyridine 119171-18-5, 1-Methyl-3-propyl imidazolium iodide 141460-19-7, N3 Dye 335377-64-5, Thermobond 615
RL: DEV (Device component use); USES (Uses)
(**wire** interconnects for connected flexible photovoltaic cells)

L88 ANSWER 4 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:1076501 HCAPLUS
DOCUMENT NUMBER: 142:39393
TITLE: Formation method of unevenness on sheet materials and sheet shaped rubbers and foamed rubber sheets
INVENTOR(S): Inoue, Sadao
PATENT ASSIGNEE(S): Bando Chemical Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004351836	A2	20041216	JP 2003-154227	2003 0530

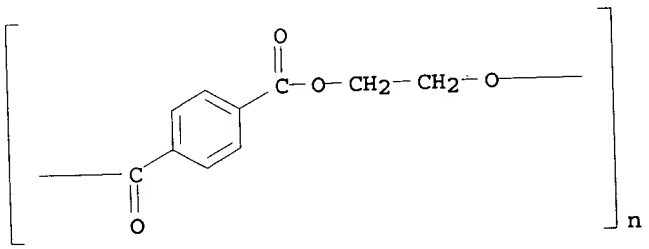
PRIORITY APPLN. INFO.: JP 2003-154227 2003 0530

AB Title method comprise (i) overlapping an unevenness forming member to one of the surface of sheet materials comprising polymeric materials which are softened and expanded by heat such as thermoplastic elastomers and rubber compns. via a sheet-shaped release material, (ii) integrally heat-pressing thereof, and (iii) separation of the unevenness forming member and the release material from the sheet material by chipping, wherein the unevenness forming material is not deformed by heat-press and selected from the various wire gauges such as rhombic wire nets, crimp wire nets, tortoise wire nets, woven wire fabrics, welded wire fabrics, reinforced grids, punching metals, expand metals, natural fiber nets, synthetic fiber nets, and synthetic plates having regular specific dents or openings and the release material is heat and press-resistant bend deformable and selected from release films and release-treated fabrics. Thus, a butyl rubber was placed on a plain weave fabric comprising polyester fibers, a plain weave fabric comprising nylon 66 as a release material was overlapped on the butyl rubber, a galvanized iron wire crimp wire net was placed on the release material, heat-pressed, and removed the crimp wire net and the release material to give a rubber having dents with depth 2.3-4.6 mm, which was placed on a rubber sheet comprising styrene-butadiene rubber composition and heat-pressed to give a rubber sheet having protrusion shapes on the surfaces.

IT **25038-59-9**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(release **film**; formation method of unevenness on sheet materials and sheet shaped rubbers and foamed rubber sheets)

RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IC ICM B29C059-02
ICS B29C033-02; B29C033-68; B29C035-02; B29C059-04; C08J009-04; B29K007-00; B29K009-00; B29K019-00; B29K105-04; B29K105-24; C08L009-00

CC 38-2 (Plastics Fabrication and Uses)
Section cross-reference(s): 39, 40

IT Galvanized **steel**
RL: TEM (Technical or engineered material use); USES (Uses)
(**wires**, unevenness forming materials; formation method of unevenness on sheet materials and sheet shaped

rubbers and foamed rubber sheets)
IT **25038-59-9**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(release **film**; formation method of unevenness on sheet materials and sheet shaped rubbers and foamed rubber sheets)

L88 ANSWER 5 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:1060562 HCAPLUS
DOCUMENT NUMBER: 142:39577
TITLE: Plastic article comprising bundle drawn stainless steel fibers
INVENTOR(S): De Bondt, Stefaan; Decrop, Jaak
PATENT ASSIGNEE(S): N.V. Bekaert S.A., Belg.
SOURCE: U.S. Pat. Appl. Publ., 14 pp., Cont.-in-part of U.S. Ser. No. 482,379.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004247848	A1	20041209	US 2004-771276	2004 0204
WO 2003010353	A1	20030206	WO 2002-EP7269	2002 0702

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2004265576	A1	20041230	US 2004-482379	2004 0220

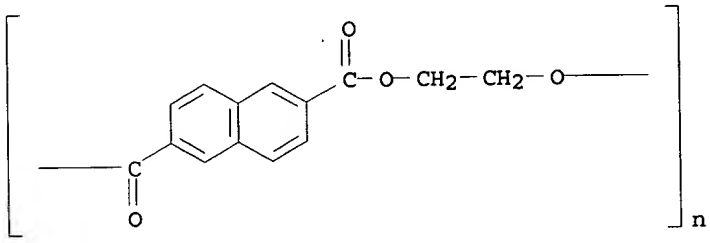
PRIORITY APPLN. INFO.:

EP 2001-202775	A	2001 0720
WO 2002-EP7269	W	2002 0702
US 2004-482379	A2	2004 0220

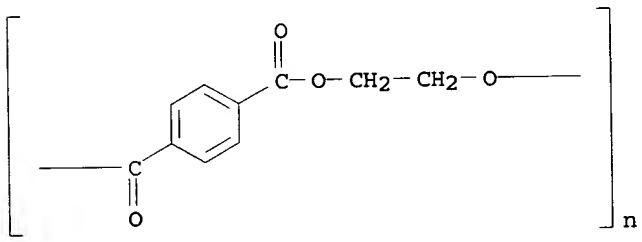
AB The plastic articles comprising stainless steel fibers are obtained by bundled drawing of stainless **steel wires** embedded in a matrix material. The composition of the stainless steel fibers comprises Fe and the following components expressed in percent by weight: C ≤0.05%, Mn ≤5%, Si ≤2%, 8≤ Ni ≤12%, 15%≤ Cr ≤20%, Mo ≤3%, **Cu** ≤4%, N ≤0.05%, S ≤0.03%, and P ≤0.05%.
IT **24968-11-4**, Polyethylene naphthalate **25038-59-9**,

uses **26062-94-2, Polybutylene terephthalate**
RL: TEM (Technical or engineered material use); USES (Uses)
(plastic comprising bundle drawn stainless steel fibers)

RN 24968-11-4 HCAPLUS
CN Poly(oxy-1,2-ethanediyloxycarbonyl-2,6-naphthalenediylcarbonyl) (9CI) (CA INDEX NAME)



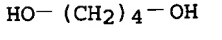
RN 25038-59-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 26062-94-2 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4
CMF C4 H10 O2



CM 2

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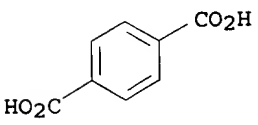


IC ICM D04H001-00
INCL 428292100
CC 38-3 (Plastics Fabrication and Uses)

IT Electromagnetic shields
(**wires**, stainless **steel** for; plastic comprising bundle drawn stainless steel fibers)
IT 7439-89-6, Iron, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(**coating**, fibers with; plastic comprising bundle drawn stainless steel fibers)
IT 9002-86-2, Polyvinyl chloride 9002-88-4, Polyethylene 9002-89-5, Polyvinyl alcohol 9003-07-0, Polypropylene 9003-53-6, Polystyrene 9003-54-7, Acrylonitrile-styrene copolymer 9003-56-9, Acrylonitrile-butadiene-styrene copolymer 9020-73-9, Polyethylene naphthalate 24937-16-4, Nylon 12 **24968-11-4**, Polyethylene naphthalate 24968-12-5, **Polybutylene terephthalate 25038-59-9**, uses 25038-74-8 **26062-94-2**, **Polybutylene terephthalate** 494831-56-0 494831-57-1 494831-58-2 494831-59-3
RL: TEM (Technical or engineered material use); USES (Uses)
(plastic comprising bundle drawn stainless steel fibers)

L88 ANSWER 6 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:820036 HCAPLUS
DOCUMENT NUMBER: 141:315948
TITLE: Resin compositions for metal wire coating and metal wires coated therewith
INVENTOR(S): Kamikawa, Yasuo
PATENT ASSIGNEE(S): Unitika Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004277642	A2	20041007	JP 2003-73690	2003 0318

PRIORITY APPLN. INFO.: JP 2003-73690 2003 0318

AB Resin compns. contain 10-80% polyarylates and 20-90% polyesters prepared mainly from terephthalic acid and ethylene glycol. Thus, Zn-plated **steel wire** was **extrusion** coated with pellets containing 30 parts U Powder and 70 parts PETG 6763.
IC ICM C09D167-02
ICS C09D123-00; C09D167-03; C09D171-10
CC 42-10 (Coatings, Inks, and Related Products)
ST metal wire coating polyester; zinc plating **steel wire** polyester coating
IT Ionomers
Phenoxy resins
Polyolefins
Thermoplastic rubber
RL: MOA (Modifier or additive use); USES (Uses)
(**polyester** resin compns. for metal wire coatings)

L88 ANSWER 7 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:756949 HCAPLUS
DOCUMENT NUMBER: 141:262158
TITLE: **Transparent** polymer **coated** metal rope and its applications

INVENTOR(S): Calleeuw, Jan; Dauwe, Danieel
PATENT ASSIGNEE(S): N.V. Bekaert S.A., Belg.
SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

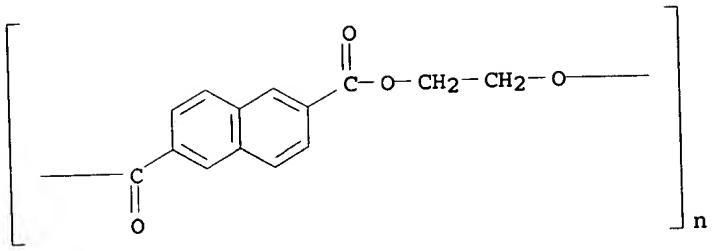
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004079085	A1	20040916	WO 2003-EP50145	2003 0506
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003303746	A1	20040928	AU 2003-303746	2003 0506

PRIORITY APPLN. INFO.: EP 2002-100480 A 2002 0513
WO 2003-EP50145 W 2003 0506

AB A metal rope comprises stainless **steel wires**, and at least partially of the wires exposed to the surface are **coated** with a **transparent** polymer selected from thermoplastic polymers, polyimides, polyamides, and polyphtalamides. The metal ropes can form woven or knitted fabrics comprising a weft and a warp, and the ropes can also be used in architectural, building, and decorative applications.

IT **24968-11-4**, Polyethylene naphthalate **26062-94-2**, Polybutylene terephthalate
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(assumed monomers; **transparent** polymer **coated** metal rope for woven fabrics and architectural and decorative ropes)

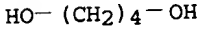
RN 24968-11-4 HCAPLUS
CN Poly(oxy-1,2-ethanediyloxycarbonyl-2,6-naphthalenediylcarbonyl) (9CI) (CA INDEX NAME)



RN 26062-94-2 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

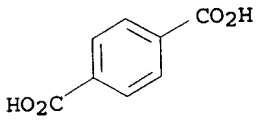
CM 1

CRN 110-63-4
CMF C4 H10 O2



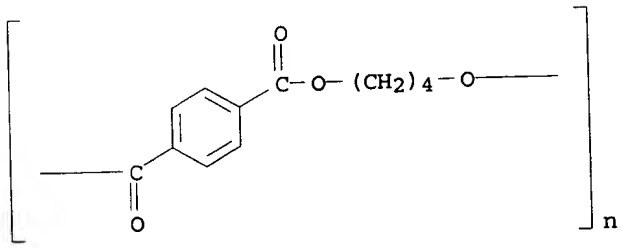
CM 2

CRN 100-21-0
CMF C8 H6 O4

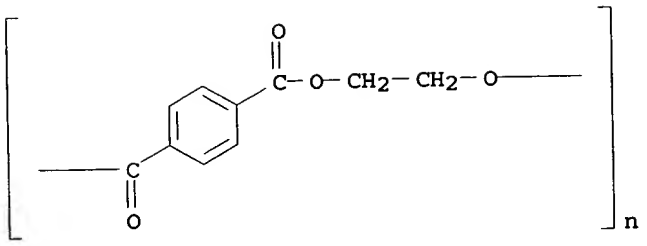


IT **24968-12-5, Polybutylene terephthalate**
25038-59-9, PET polymer, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(**transparent** polymer **coated** metal rope for woven fabrics and architectural and decorative ropes)

RN 24968-12-5 HCAPLUS
CN Poly(oxy-1,4-butanediyloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 25038-59-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IC ICM D07B001-16
ICS D07B001-06
CC 42-7 (Coatings, Inks, and Related Products)
Section cross-reference(s): 38, 40
ST **polyester** polyamide polyimide **coating** metal architectural decorative rope fabric
IT **Transparent** materials
(**coatings**; **transparent** polymer **coated** metal rope for woven fabrics and architectural and decorative ropes)
IT Textiles
(knitted; **transparent** polymer **coated** metal rope for woven fabrics and architectural and decorative ropes)
IT Ropes
Wires
(**transparent** polymer **coated** metal rope for woven fabrics and architectural and decorative ropes)
IT Polyamides, uses
Polyesters, uses
Polyimides, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(**transparent** polymer **coated** metal rope for woven fabrics and architectural and decorative ropes)
IT **Coating** materials
(**transparent**; **transparent** polymer **coated** metal rope for woven fabrics and architectural and decorative ropes)
IT Yarns
(warp; **transparent** polymer **coated** metal rope for woven fabrics and architectural and decorative ropes)
IT **24968-11-4**, Polyethylene naphthalate **26062-94-2**, Polybutylene terephthalate
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(assumed monomers; **transparent** polymer **coated** metal rope for woven fabrics and architectural and decorative ropes)
IT 9020-73-9, Polyethylene naphthalate **24968-12-5**, **Polybutylene terephthalate 25038-59-9**, PET polymer, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(**transparent** polymer **coated** metal rope for woven fabrics and architectural and decorative ropes)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L88 ANSWER 8 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:508935 HCAPLUS
DOCUMENT NUMBER: 141:74736
TITLE: High-carbon steel alloyed for drawing of high-strength fine wire coated with brass
INVENTOR(S): Zelin, Michael Gregory; Starinshak, Thomas

	Walter; Lewis, James Terry
PATENT ASSIGNEE(S):	The Goodyear Tire & Rubber Company, USA
SOURCE:	U.S. Pat. Appl. Publ., 14 pp.
	CODEN: USXXCO
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004118486	A1	20040624	US 2002-322975	2002 1218
US 6949149	B2	20050927		
EP 1433868	A1	20040630	EP 2003-104628	2003 1210
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003005998	A	20040831	BR 2003-5998	2003 1210

PRIORITY APPLN. INFO.:	US 2002-322975	A	2002 1218

AB The low-alloy **steel** for **wire** drawing contains C 0.95-1.3, Mn 0.2-1.8, Si 0.2-1.2, Cr 0.2-1.8, Co ≤2.2, Nb ≤0.1, S <0.006, P <0.010, and B 0.0006-0.0025% by weight The **steel wire** is drawn to an intermediate diameter and **bright surface**, followed by chemical patenting to form pearlitic microstructure with fine lamellar spacing, coating with brass, and fine drawing to the final diameter of 0.1-0.4 mm with true strain of 3.6-4.5 for tensile strength of nominally 3800-4500 MPa. The brass-coated wire is suitable for manufacture of high-strength tire cords. The typical steel contains C 1.10, Mn 0.6, Si 0.4, Cr 0.5, Co 1.9, Nb 0.006, and B 0.0006% by weight

IC ICM C21D008-06
INCL 148522000; 148532000; 148598000
CC 55-3 (Ferrous Metals and Alloys)
ST carbon **steel** drawing **wire** strength brass coating
IT **Wires**
(brass-coated **steel**; high-carbon steel alloyed for drawing of high-strength fine wire coated with brass)
IT 12597-71-6, Brass, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(coating, **steel wire** with; high-carbon steel alloyed for drawing of high-strength fine wire coated with brass)

L88 ANSWER 9 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:	2003:853152 HCAPLUS
DOCUMENT NUMBER:	139:339087
TITLE:	Coating on metallic wires for foundation garments such as underwirings of brassieres, coating structures, and coating materials
INVENTOR(S):	Honma, Isao; Honma, Fuminari
PATENT ASSIGNEE(S):	Japan
SOURCE:	Jpn. Kokai Tokkyo Koho, 12 pp.
	CODEN: JKXXAF
DOCUMENT TYPE:	Patent
LANGUAGE:	Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003306805	A2	20031031	JP 2002-107638	20020410

PRIORITY APPLN. INFO.: JP 2002-107638 20020410

AB The process involves (i) heating of the whole of a wire, (ii) depositing thermoplastic resin(-based) powders on all over the hot metallic wire and adhereing of the melted, (iii) heating of the wire ends, (iv) depositing powders of thermoplastic resins, thermosetting resins, or resins involving thermosetting resins on the hot ends and adhering of the melted, (v) heating of the whole of the coated wire, and (vi) quenching of the thermally finished wire. The coating material containing powdered thermoplastic resins as the base component and containing ≥3% powdered thermosetting resins are also claimed. Thus, a coating containing regenerated poly(ethylene terephthalate) (PET) and a binder comprising poly(ethylene terephthalate) 40, poly(butylene terephthalate) 40, and low-mol.-weight olefin wax 20% was dip-coated on a hot C **steel wire** for an underwiring of a brassiere in a fluidized bed, then the ends of the coated wire were dip-coated with regenerated PET contg.7% unsatd. polyesters to give laminated coating structures with improved bond strength on edges.

IC ICM A41C003-14
ICS A41C005-00; B05D007-20; B05D007-24; C09D005-03; C09D167-00; C09D167-06; C09D201-00

CC 42-2 (Coatings, Inks, and Related Products)

ST brassiere underwiring laminar edge coating; **polyethylene terephthalate coating** brassiere underwiring; unsatd polyester coating brassiere underwiring end

L88 ANSWER 10 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:811809 HCAPLUS
DOCUMENT NUMBER: 139:308765
TITLE: Flexible low gas-permeable hose containing gas-barrier wire-netting layer
INVENTOR(S): Kosaka, Nobuhiro
PATENT ASSIGNEE(S): Bridgestone Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

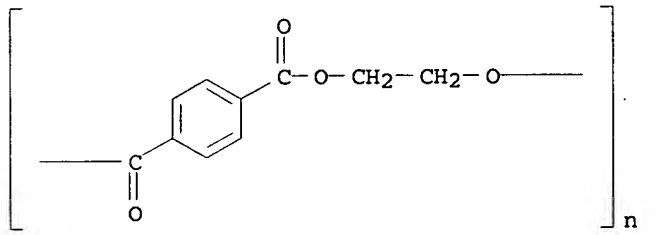
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003294177	A2	20031015	JP 2002-96286	20020329

PRIORITY APPLN. INFO.: JP 2002-96286 20020329

AB Title hose consists in the order of (A) an inner layer, optionally (B) an inner elastic layer, (C) gas-barrier wire-netting layer such as iron, stainless steel, galvanized steel, **copper**, and brass optionally (D) an outer elastic layer, optionally (E) a

reinforcing layer, and (F) an outer layer.

IT **25038-59-9**, PET polymer, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(fibers, reinforcing layer; production of flexible low gas-permeable hose containing gas-barrier wire-netting layer)
RN 25038-59-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IT **7440-50-8**, **Copper**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(gas-barrier wire-netting layer; production of flexible low gas-permeable hose containing gas-barrier wire-netting layer)
RN 7440-50-8 HCAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

IC ICM F16L011-12
ICS B32B001-08; B32B015-06; F16L011-08
CC 39-15 (Synthetic Elastomers and Natural Rubber)
IT Metallic fibers
RL: TEM (Technical or engineered material use); USES (Uses)
(**copper**, gas-barrier wire-netting layer; production of flexible low gas-permeable hose containing gas-barrier wire-netting layer)
IT Galvanized **steel**
RL: TEM (Technical or engineered material use); USES (Uses)
(gas-barrier **wire**-netting layer; production of flexible low gas-permeable hose containing gas-barrier wire-netting layer)
IT **Coating** materials
(gas-impermeable; production of flexible low gas-permeable hose containing gas-barrier wire-netting layer)
IT Metallic fibers
RL: TEM (Technical or engineered material use); USES (Uses)
(stainless **steel**, gas-barrier **wire**-netting layer; production of flexible low gas-permeable hose containing gas-barrier wire-netting layer)
IT **25038-59-9**, PET polymer, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(fibers, reinforcing layer; production of flexible low gas-permeable hose containing gas-barrier wire-netting layer)
IT 7439-89-6, Iron, uses **7440-50-8**, **Copper**, uses
12597-68-1, Stainless steel, uses 12597-71-6, Brass, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(gas-barrier wire-netting layer; production of flexible low gas-permeable hose containing gas-barrier wire-netting layer)

L88 ANSWER 11 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:610807 HCAPLUS
DOCUMENT NUMBER: 139:152332
TITLE: Structures and materials for dye sensitized

solar cells
INVENTOR(S): Gaudiana, Russell A.; Li, Lian; Eckert, Robert; Montello, Alan; Montello, Edmund; Ryan, James; Beckenbaugh, Bill
PATENT ASSIGNEE(S): Konarka Technologies, Inc., USA
SOURCE: PCT Int. Appl., 134 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 22
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003065472	A2	20030807	WO 2003-US2263	2003 0124
WO 2003065472	A3	20040415		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003140959	A1	20030731	US 2002-57394	2002 0125
US 6706963	B2	20040316		
CN 1541425	A	20041027	CN 2002-815625	2002 0531
CA 2474491	AA	20030807	CA 2003-2474491	2003 0124
EP 1470598	A2	20041027	EP 2003-705906	2003 0124
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005516371	T2	20050602	JP 2003-564952	2003 0124
PRIORITY APPLN. INFO.:			US 2002-351691P P	2002 0125
			US 2002-57394 A	2002 0125
			US 2002-368832P P	2002 0329
			US 2002-400289P P	2002 0731

US 2002-427642P P 2002 1119

AT 2001-1231 A 2001 0807

WO 2003-US2263 W 2003 0124

AB Materials of, structures of, and methods of forming photovoltaic cells and modules are described. In particular, the invention, in one embodiment, provides wires to interconnect conductive layers of a cell or module. The photoactive layer may be sintered on a metal foil at either high or low temps. to form a flexible photovoltaic cell or module. In addition, photovoltaic cells or modules may be formed on rigid substrates to enhance the longevity and durability of the cell or module. Discrete photovoltaic cells or modules may be formed by parting an elec. conductive **coating** on a polymeric substrate and melting at least a portion of the polymeric substrate, thus encapsulating any debris formed when the conductive layer is parted. In addition, a method of using an ultrasonic slitting device to cut and seal the edges of photovoltaic cells and modules is described.

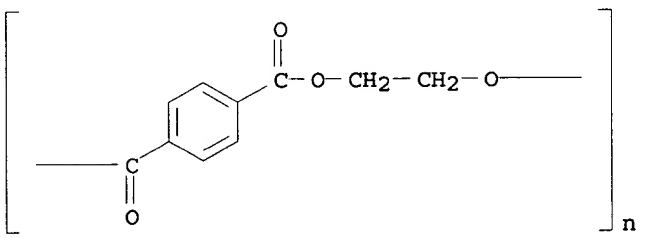
IT **7440-31-5, Tin**, uses
RL: DEV (Device component use); USES (Uses)
(structures and materials for dye sensitized solar cells)
RN 7440-31-5 HCAPLUS
CN Tin (8CI, 9CI) (CA INDEX NAME)

Sn

IT **7440-50-8, Copper**, uses **25038-59-9, Polyethylene terephthalate**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(structures and materials for dye sensitized solar cells)
RN 7440-50-8 HCAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

RN 25038-59-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IC ICM H01L051-20
ICS H01G009-20; H01L025-04
CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)

IT **Coating** process
(dip; structures and materials for dye sensitized solar cells)

IT 18282-10-5, **Tin** oxide sno2
RL: TEM (Technical or engineered material use); USES (Uses)
(F-doped; structures and materials for dye sensitized solar cells)

IT 629-03-8, 1,6-Dibromohexane 1312-81-8, Lanthanum oxide 1314-13-2, Zinc oxide, uses 1314-23-4, Zirconium oxide, uses 1314-35-8, Tungsten oxide, uses 1317-70-0, Anatase 1332-29-2, **Tin** oxide 6156-37-2, Benzoic acid, 4-Diphenylamino **7440-31-5**, **Tin**, uses 7440-69-9, Bismuth, uses 7447-41-8, Lithium chloride (LiCl), uses 7550-35-8, Lithium bromide (LiBr) 7553-56-2, Iodine, uses 10377-51-2, Lithium iodide (LiI) 12627-00-8, Niobium oxide 12738-76-0, Terbium oxide 13463-67-7, Titanium oxide, uses 14900-04-0, Triiodide 15438-31-0, uses 20074-52-6, uses 20461-54-5, Iodide, uses 22541-53-3, Cobalt(2+), uses 22541-63-5, Cobalt(3+), uses 25232-41-1, Poly(4-vinylpyridine) 50926-11-9, Ito 59763-75-6, Tantalum oxide 65039-05-6, 1-Methyl 3-butyl imidazolium iodide 118676-08-7, tert-Butylpyridine 119171-18-5, 1-Methyl 3-propyl imidazolium iodide 178631-05-5, 1-Methyl 3-hexyl imidazolium iodide 573685-54-8
RL: DEV (Device component use); USES (Uses)
(structures and materials for dye sensitized solar cells)

IT 7440-32-6, Titanium, uses **7440-50-8**, **Copper**, uses 9022-96-2, Poly(n-butyl titanate) **25038-59-9**, **Polyethylene terephthalate**, uses 41246-22-4, 3-Methoxybutyronitrile
RL: TEM (Technical or engineered material use); USES (Uses)
(structures and materials for dye sensitized solar cells)

IT 12597-68-1, Stainless **steel**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(**wire**; structures and materials for dye sensitized solar cells)

L88 ANSWER 12 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:394834 HCAPLUS
DOCUMENT NUMBER: 138:389155
TITLE: Layered composites with metal sheets and thermoplastic polymer interlayer with wire-type reinforcement
INVENTOR(S): Braekevelt, Geert; Dekeyser, Willem; Lefever, Ignace; Lokere, Erwin; Van Giel, Frans
PATENT ASSIGNEE(S): N.V. Bekaert S.A., Belg.
SOURCE: Eur. Pat. Appl., 11 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1312468	A1	20030521	EP 2001-204422	2001 1119
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2004229533	A1	20041118	US 2003-438212	2003 0515
PRIORITY APPLN. INFO.:			EP 2001-204422 A	2001 1119

AB The layered composites include: (a) metal or alloy sheet for top and/or bottom layer; (b) thermoplastic resin interlayer as the binder; and (c) reinforcing wires, fibers, or ribbons in the resin interlayer. The metal reinforcement in thermoplastic interlayer is optionally based on woven mesh or grid typically precoated for increased adhesion to the binder. The bonding interlayer is optionally based on thermoplastic elastomer or vulcanized rubber. The metal or alloy sheets are nominally 10-20,000 μm thick. The layered composites typically show vibration damping, bending formability, and impact resistance, and are suitable for automotive and building panels. The typical composite is manufactured from the top and bottom Al sheets 200 μm thick with the polyamide bonding interlayer reinforced in the center with a **steel-wire** fabric nominally 300 μm thick.

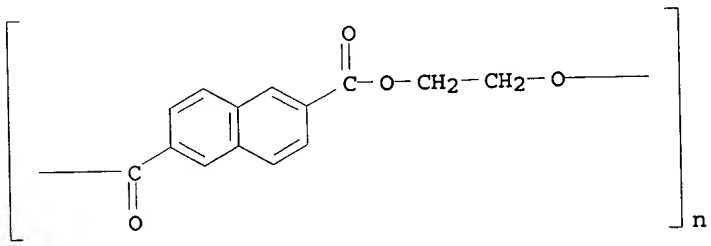
IT **7440-50-8, Copper**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(composites with; layered composites with metal sheets and polymer interlayer with wire reinforcement)

RN 7440-50-8 HCAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

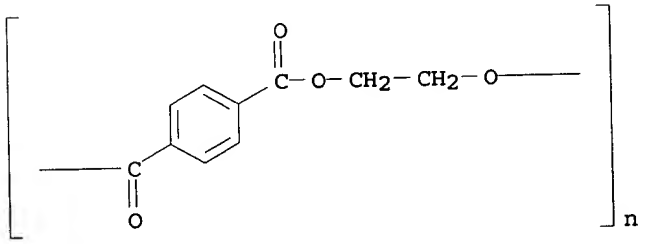
Cu

IT **24968-11-4**, Polyethylene naphthalate **25038-59-9**, **Polyethylene terephthalate**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(interlayer, composites with reinforced; layered composites with metal sheets and polymer interlayer with wire reinforcement)

RN 24968-11-4 HCAPLUS
CN Poly(oxy-1,2-ethanediyloxycarbonyl-2,6-naphthalenediylcarbonyl) (9CI) (CA INDEX NAME)



RN 25038-59-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IC ICM B32B015-08
CC 56-4 (Nonferrous Metals and Alloys)
Section cross-reference(s): 38

ST multilayer metal composite polymer binder wire reinforcement; aluminum multilayer composite polyamide binder **steel wire** reinforcement

IT 7429-90-5, Aluminum, uses 7440-32-6, Titanium, uses **7440-50-8, Copper**, uses 11106-93-7 12597-68-1, Stainless steel, uses 42611-06-3 65442-43-5
RL: TEM (Technical or engineered material use); USES (Uses)
(composites with; layered composites with metal sheets and polymer interlayer with wire reinforcement)

IT 9002-86-2, Polyvinyl chloride 9002-88-4, Polyethylene 9003-07-0, Polypropylene 9003-53-6, Polystyrene 9003-56-9, Acrylonitrile-butadiene-styrene copolymer **24968-11-4**, Polyethylene naphthalate **25038-59-9**, **Polyethylene terephthalate**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(interlayer, composites with reinforced; layered composites with metal sheets and polymer interlayer with wire reinforcement)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L88 ANSWER 13 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:133552 HCAPLUS
DOCUMENT NUMBER: 138:171632
TITLE: Wear-resistant hoses
INVENTOR(S): Hatanaka, Susumu
PATENT ASSIGNEE(S): Yokohama Hydex Co., Ltd., Japan
SOURCE: PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003014610	A1	20030220	WO 2002-JP7970	2002 0805

W: JP, KR, US
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR

PRIORITY APPLN. INFO.: JP 2001-237695 A 2001 0806

AB Title hoses consecutively consist of inner tubes, reinforcer layers, outer tubes, and thermoplastic rubber-based covering layers containing thermoplastic matrix resins (preferably having tensile modulus of ≤100 MPa) and 0.2-6% (preferably) dispersed silicones. A 0.6% dispersed SP 110 (ethylene-methacrylate copolymer-grafted silicone)-containing PBT-PTMG copolymer matrix was used as the above covering along with a nitrile rubber inner tube, a **steel wire** reinforcer, a SBR outer tube, and an isocyanate adhesive to form a hose showing adhesion between the SBR and covering layer of 10 kN/m and abrasion resistance index 20% higher than a hose prepared similarly using nylon tape as the covering.

IC ICM F16L011-10
CC 39-15 (Synthetic Elastomers and Natural Rubber)

IT Thermoplastic rubber
RL: TEM (Technical or engineered material use); USES (Uses)
(covering; wear-resistant rubber hoses containing dispersed silicone-containing **polyester** matrix-made

thermoplastic rubber coverings)
IT Polysiloxanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(di-Me, poly(ethylene-vinyl acetate)-, graft, SP 110 (siloxane); wear-resistant rubber hoses containing dispersed silicone-containing **polyester** matrix-made **thermoplastic** rubber coverings)
IT Nitrile rubber, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(inner tube of hose; wear-resistant rubber hoses containing dispersed silicone-containing **polyester** matrix-made **thermoplastic** rubber coverings)
IT Adhesives
(isocyanato, for outer tubes and coverings; wear-resistant rubber hoses containing dispersed silicone-containing **polyester** matrix-made **thermoplastic** rubber coverings)
IT Polyesters, properties
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(low tensile modulus; wear-resistant rubber hoses containing dispersed silicone-containing **polyester** matrix-made **thermoplastic** rubber coverings)
IT Styrene-butadiene rubber, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(outer tube of hose; wear-resistant rubber hoses containing dispersed silicone-containing **polyester** matrix-made **thermoplastic** rubber coverings)
IT Hoses
(wear-resistant rubber hoses containing dispersed silicone-containing **polyester** matrix-made **thermoplastic** rubber coverings)
IT 106159-00-6
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(low tensile modulus; wear-resistant rubber hoses containing dispersed silicone-containing **polyester** matrix-made **thermoplastic** rubber coverings)
IT 9003-18-3
RL: TEM (Technical or engineered material use); USES (Uses)
(nitrile rubber, inner tube of hose; wear-resistant rubber hoses containing dispersed silicone-containing **polyester** matrix-made **thermoplastic** rubber coverings)
IT 24937-78-8D, Ethylene-vinyl acetate polymer, graft polymers with polysiloxanes
RL: TEM (Technical or engineered material use); USES (Uses)
(rubber; wear-resistant rubber hoses containing dispersed silicone-containing **polyester** matrix-made **thermoplastic** rubber coverings)
IT 9003-55-8
RL: TEM (Technical or engineered material use); USES (Uses)
(styrene-butadiene rubber, outer tube of hose; wear-resistant rubber hoses containing dispersed silicone-containing **polyester** matrix-made **thermoplastic** rubber coverings)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L88 ANSWER 14 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:5536 HCAPLUS
DOCUMENT NUMBER: 138:57123
TITLE: Thermoplastic resin laminates with having binding layers containing electric resistance-heat generating materials and heat-conductive materials and their preparation
INVENTOR(S): Chang, Hong-Geun; Kang, Jung-Sook; La,

	Mi-Hyang
PATENT ASSIGNEE(S):	S. Korea
SOURCE:	U.S. Pat. Appl. Publ., 11 pp.
	CODEN: USXXCO
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003003317	A1	20030102	US 2002-175008	20020620
KR 2002096479	A	20021231	KR 2001-35023	20010620
CN 1393336	A	20030129	CN 2002-124819	20020620
JP 2003048268	A2	20030218	JP 2002-179813	20020620
JP 3710766	B2	20051026		
US 2005205203	A1	20050922	US 2005-123186	20050506

PRIORITY APPLN. INFO.:	KR 2001-35023	A	20010620
	US 2002-175008	B3	20020620

AB The laminate comprises an exterior layer (e.g., toughened polyolefin/foaming polypropylene/polypropylene triple layer sheet), a base layer (e.g., glass fiber-containing propylene copolymer), and a binding layer placed between the exterior layer and the base layer, wherein the binding layer contains ≥1 material selected from elec. resistance-heat generating materials and heat-conductive materials, and has ≥1 connection terminal at a certain region for supplying at least one of electricity or heat (e.g., stainless **steel wire** mesh). The resin-laminated structures have good properties such as adhesive strength between a base layer and an exterior layer, recycling utility, surface quality in feeling, thermal durability, acoustic absorptivity, heat-shielding property, and impulse-durability,. Therefore, the laminates are useful for interior automotive trims, acoustic absorptive members, heat-insulating members, lagging members, protective **coating** members, anti-vibration members, and sound-blocking members for civil engineering and construction, anti-vibration and sound-blocking members for sewage and water pipe, soundproofing members for hot-water "ondol", plastic furniture, various multi-layer mats, handles, sofas, chairs, various toys, middle soles of shoes, and golf bags.

IT **7440-31-5, Tin**, uses
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(binding layer containing; manufacture of thermoplastic resin laminates with having binding layers containing elec. resistance-heat generating materials and heat-conductive materials)

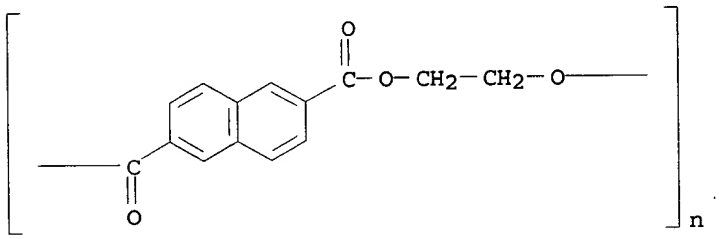
RN 7440-31-5 HCAPLUS

CN Tin (8CI, 9CI) (CA INDEX NAME)

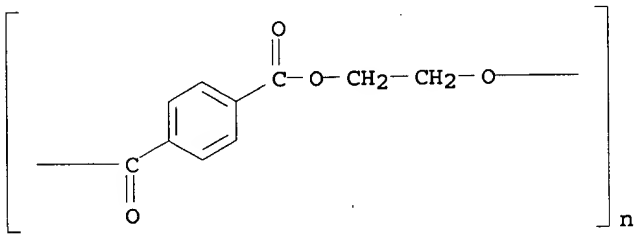
Sn

IT **24968-11-4**, Poly(ethylene naphthalate) **25038-59-9**, Poly(ethylene terephthalate), uses **26062-94-2**, Poly(butylene terephthalate)
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(manufacture of thermoplastic resin laminates with having binding layers containing elec. resistance-heat generating materials and heat-conductive materials)

RN 24968-11-4 HCAPLUS
CN Poly(oxy-1,2-ethanediyloxycarbonyl-2,6-naphthalenediylcarbonyl) (9CI) (CA INDEX NAME)



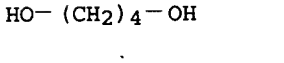
RN 25038-59-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 26062-94-2 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

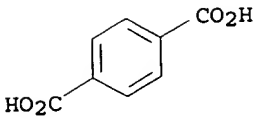
CM 1

CRN 110-63-4
CMF C4 H10 O2



CM 2

CRN 100-21-0
CMF C8 H6 O4



IT **7440-50-8, Copper**, uses
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(mesh, binding layer containing; manufacture of thermoplastic resin laminates with having binding layers containing elec. resistance-heat generating materials and heat-conductive materials)
RN 7440-50-8 HCAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

IC ICM B32B015-08
INCL 428558000; 428461000; 428463000; 428209000
CC 38-3 (Plastics Fabrication and Uses)
IT Nonwoven fabrics
Paper
Plastic **films**
Wood
(exterior layer containing; manufacture of thermoplastic resin laminates with having binding layers containing elec. resistance-heat generating materials and heat-conductive materials)
IT **Coating** materials
Leather substitutes
Liquid crystals, polymeric
Toys
(manufacture of thermoplastic resin laminates with having binding layers containing elec. resistance-heat generating materials and heat-conductive materials)
IT 7429-90-5, Aluminum, uses 7439-89-6, Iron, uses 7439-92-1, Lead, uses 7439-95-4, Magnesium, uses 7439-96-5, Manganese, uses 7439-98-7, Molybdenum, uses 7440-02-0, Nickel, uses 7440-21-3, Silicon, uses 7440-22-4, Silver, uses **7440-31-5, Tin**, uses 7440-32-6, Titanium, uses 7440-33-7, Tungsten, uses 7440-43-9, Cadmium, uses 7440-47-3, Chromium, uses 7440-48-4, Cobalt, uses 7440-66-6, Zinc, uses 7440-67-7, Zirconium, uses
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(binding layer containing; manufacture of thermoplastic resin laminates with having binding layers containing elec. resistance-heat generating materials and heat-conductive materials)
IT 79-10-7D, Acrylic acid, polymers with polyolefin 9002-84-0, Polytetrafluoroethylene 9002-85-1, PVDC 9002-88-4, Polyethylene 9003-53-6, Polystyrene 9003-54-7, Acrylonitrile-styrene copolymer 9011-14-7, Poly(methyl methacrylate) 9020-73-9, Poly(ethylene naphthalate) 9041-80-9, Polyphenylene ether 24937-78-8, EVA **24968-11-4**, Poly(ethylene naphthalate) 24968-12-5, Poly(butylene terephthalate) **25038-59-9**, Poly(ethylene terephthalate), uses 25038-71-5, Ethylene-tetrafluoroethylene copolymer 25067-34-9, Ethylene-vinyl alcohol copolymer **26062-94-2**, Poly(butylene terephthalate) 106107-54-4
RL: PEP (Physical, engineering or chemical process); PYP (Physical

process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(manufacture of thermoplastic resin laminates with having binding layers containing elec. resistance-heat generating materials and heat-conductive materials)

IT **7440-50-8, Copper**, uses 12597-68-1, Stainless steel, uses
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(mesh, binding layer containing; manufacture of thermoplastic resin laminates with having binding layers containing elec. resistance-heat generating materials and heat-conductive materials)

L88 ANSWER 15 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:601932 HCAPLUS
DOCUMENT NUMBER: 137:174992
TITLE: Flexible tubes with good elasticity and durability for endoscopes
INVENTOR(S): Abe, Hironao
PATENT ASSIGNEE(S): Asahi Optical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002224018	A2	20020813	JP 2001-28515	2001 0205
PRIORITY APPLN. INFO.:			JP 2001-28515	2001 0205

AB The flexible tubes consist of a tube formed from coiled strips, a net tube formed from thin wires, at least one of which has a coating layer of organic-inorg. composites containing urethane elastomers and SiO2, and a skin layer. A solution containing an alkoxysilyl-terminated urethane elastomer (prepared from isocyanate-terminated polyester-polyurethane prepolymer, isophorone diamine, and 3-aminopropyltriethoxysilane), MS 51 (tetramethoxysilane condensate), and p-toluenesulfonic acid was applied on a stainless **steel wire** to give a coated wire. A tube formed from stainless steel strips was covered with a net formed from the coated wire and uncoated stainless **steel wires** to give a tube core, and Resamine P 1045 (**thermoplastic polyester** -urethane elastomer) was **extruded** onto the tube core to give a flexible tube showing good elasticity, good adhesion between the skin layer and the core layer, and high durability.

IC ICM A61B001-00
ICS F16L011-04; G02B023-24

CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 39, 55

L88 ANSWER 16 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:377822 HCAPLUS
DOCUMENT NUMBER: 136:387099
TITLE: Metal-thermoplastic laminate and its application in covered **wire** and laminated **steel** panel

INVENTOR(S): Otsuka, Yoshihiro
PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002144472	A2	20020521	JP 2000-343861	2000 1110

PRIORITY APPLN. INFO.: JP 2000-343861 2000 1110

AB Title laminate, which is useful as a substitute to PVC-based material in making covered iron wire and resin-laminated steel panel for home-electronics, is obtained by laminating or covering a metal sheet with a thermoplastic composition comprising 100 parts of a thermoplastic resin, such as a polyester resin, and 3-70 parts of an epoxidized diene polymer having an oxirane oxygen content of 0.5-4.0 weight%.

IT **26062-94-2**
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(metal-**thermoplastic** laminate and its application in covered **wire** and laminated **steel** panel)

RN 26062-94-2 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

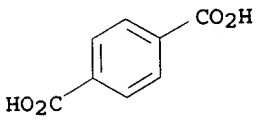
CM 1

CRN 110-63-4
CMF C4 H10 O2

$$HO-(CH_2)_4-OH$$

CM 2

CRN 100-21-0
CMF C8 H6 O4



IC ICM B32B015-08
ICS B32B015-08; C08L067-00; C08L101-00; C23C026-02; C08L063-08
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 56
IT Coils
(metal-thermoplastic laminate and its application in covered **wire** and laminated **steel** panel)
IT Laminated plastics, uses

Polyesters, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(metal-**thermoplastic** laminate and its application in covered **wire** and laminated **steel** panel)

IT Polymer blends
RL: TEM (Technical or engineered material use); USES (Uses)
(metal-thermoplastic laminate and its application in covered **wire** and laminated **steel** panel)

IT **Polyester** rubber
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(**thermoplastic**, Pelprene P 90; metal-thermoplastic laminate and its application in covered **wire** and laminated **steel** panel)

IT 7439-89-6, Iron, uses
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(Zn-plated, coil; metal-thermoplastic laminate and its application in covered **wire** and laminated **steel** panel)

IT 106107-54-4DP, Butadiene-styrene block copolymer, epoxidized
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(metal-thermoplastic laminate and its application in covered **wire** and laminated **steel** panel)

IT 12597-69-2, Steel, uses
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(metal-thermoplastic laminate and its application in covered **wire** and laminated **steel** panel)

IT 24968-12-5, Duranex 600FP 25640-14-6, PET G 6763
26062-94-2 425669-39-2, Vylon 173
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(metal-**thermoplastic** laminate and its application in covered **wire** and laminated **steel** panel)

L88 ANSWER 17 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:241264 HCAPLUS
DOCUMENT NUMBER: 136:264260
TITLE: Wire reinforced thermoplastic composite layers and load bearing structures
INVENTOR(S): Tunis, George
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 25 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002037409	A1	20020328	US 2001-947681	2001 0905
CA 2356724	AA	20020306	CA 2001-2356724	2001 0905
WO 2003033246	A1	20030424	WO 2001-IB1944	2001

1017

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1438181 A1 20040721 EP 2001-974610
2001
1017

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

US 2004121137 A1 20040624 US 2003-732383
2003
1210

PRIORITY APPLN. INFO.: US 2000-230483P P
2000
0906

US 2001-947681 A3
2001
0905

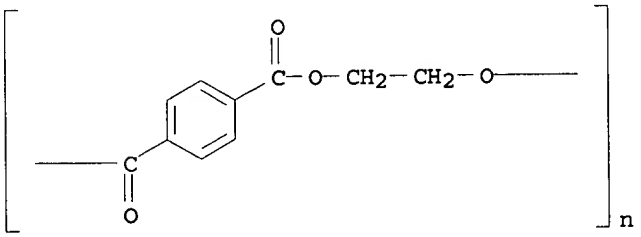
WO 2001-IB1944 W
2001
1017

AB A structural reinforcing layer is made from wire, a structural reinforcing composite layer made from wire, and the resulting load bearing structures are made from or retrofitted with wire reinforced plastics and cements. Said layers and structures made from monofilament metallic or pre-cured composite materials twisted into multi-strand wire geometry optimized to mech. shear load into rigid thermoplastic, thermoset, metallic or cementious resin systems. Wire geometry, count, size and strength/stiffness can be varied in combination with resin type, sheet structure, permeability and orientation to create layers intended for use in composite and cement based structures as originally molded reinforcement or retrofitted structural upgrades.

IT **25038-59-9**, Poly(ethylene terephthalate), uses
RL: TEM (Technical or engineered material use); USES (Uses)
(wire reinforced thermoplastic composite of)

RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IT **7440-50-8, Copper**, uses **12597-69-2, Steel**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(**wire**; **wire** reinforced thermoplastic

composite)
RN 7440-50-8 HCAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

RN 12597-69-2 HCAPLUS
CN Steel (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IC ICM D02G003-00
ICS B32B027-12
INCL 428375000
CC 38-3 (Plastics Fabrication and Uses)
IT Polyester fibers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(knitted fabric with **copper** and **steel** **wire**; **wire** reinforced thermoplastic composite)
IT 9002-84-0, Teflon 9002-86-2, PVC 9002-88-4, Polyethylene 9003-07-0, Polypropylene **25038-59-9**, Poly(ethylene terephthalate), uses
RL: TEM (Technical or engineered material use); USES (Uses)
(wire reinforced thermoplastic composite of)
IT **7440-50-8**, **Copper**, uses **12597-69-2**, **Steel**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(**wire**; **wire** reinforced thermoplastic composite)

L88 ANSWER 18 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:790218 HCAPLUS
DOCUMENT NUMBER: 133:324308
TITLE: Acidic bath free of nitric acid for pickling of stainless steel articles in the presence of chloride ions
INVENTOR(S): Negri, Dario; Giordani, Paolo Bruno
PATENT ASSIGNEE(S): Henkel Kommanditgesellschaft auf Aktien, Germany; Acciai Speciali Terni S.p.A.; Thyssenkrupp Acciai Speciali Terni S.p.A.
SOURCE: Eur. Pat. Appl., 11 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1050605	A2	20001108	EP 2000-109339	2000 0502
EP 1050605	A3	20020206		
EP 1050605	B1	20041027		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
IT 99MI0943	A1	20001103	IT 1999-MI943	1999 0503
IT 1312556	B1	20020422		
US 6554908	B1	20030429	US 2000-560982	2000 0428

AT 280851	E	20041115	AT 2000-109339	2000 0502
PT 1050605	T	20050228	PT 2000-109339	2000 0502
ES 2231070	T3	20050516	ES 2000-109339	2000 0502
PRIORITY APPLN. INFO.:			IT 1999-MI943 A	1999 0503

AB The bath for acidic pickling of stainless steels and similar alloys at nominally 20-70° contains H2SO4 50-200, HF (as free acid) 0-60, F- anion (total) 5-150, SO42- anion (total) 50-350, Fe3+ ≥15, chloride anion as accelerator at 0.1-10 g/L, and an effective oxidizer (especially stabilized H2O2). The acidic pickling bath is controlled with the oxidizer for the Fe3+/Fe2+ content ratio of ≥0.2, and the redox potential at 230-800 mV, using the bath stirred for uniformity. The pickled surface of stainless steel is preferably passivated in aqueous acidic bath containing H2SO4 or H3PO4 at 20-50, HF 0-10, and H2O2 2-15 g/L (or alkaline persulfate). The austenitic stainless **steel** (304L) **wire** was pickled for 20-40 min in the acidic bath at 60° stirred with bottom-blown air, and showed a stable **bright surface** in the presence of NaCl for chloride accelerator at ≤0.6 g/L, vs. borderline overpickling at 6 g chloride/L and a poor finish on the pickled surface after storage for 40 m.

IC ICM C23G001-08
CC 55-6 (Ferrous Metals and Alloys)
IT Pipes and Tubes
Wires
(stainless **steel**, pickling of; acidic bath free of HNO3 for pickling of stainless steel in presence of chloride)

L88 ANSWER 19 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:657895 HCAPLUS
DOCUMENT NUMBER: 133:224111
TITLE: **Thermoplastic polyester** elastomer mandrels and manufacture of high-pressure rubber hoses using them
INVENTOR(S): Kobayashi, Koji; Gyobu, Shoichi; Ide, Nobuhiro; Nakayama, Seiji
PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000254925	A2	20000919	JP 1999-61385	1999 0309
PRIORITY APPLN. INFO.:			JP 1999-61385	1999 0309

AB Title mandrels comprise polyester elastomers having crystallization m.p. y° [y ≥ 200 + 0.5x; x = content of hard segment (weight%)], Vicat softening temperature z° (z ≥ 50 + 1.5x),

and elongation 100%. The hoses are manufactured by applying raw materials for rubber inner layers and raw materials for reinforcement fiber layers on the mandrels, molding, and hot vulcanizing. Thus, cyclohexanedimethanol-di-Me terephthalate-HP 1000 (hydrogenated dimer diol)-polytetramethylene glycol block copolymer rubber with x 65%, y 259°, and z 213°, pentaerythritol tetrakis[3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate], pentaerythritol tetrakis(3-laurylthiopropionate), 2-(3-tert-butyl-5-methyl-2-hydroxyphenyl)benzotriazole, bisphenol A, and Ph3P were mixed, pelletized, dried, and **extruded** to give a mandrel showing good flexibility and high heat resistance.

IT **12597-69-2, Steel**, uses
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(**wires**, reinforcement; polyester elastomer mandrel with high heat resistance for manufacture of high-pressure hoses)

RN 12597-69-2 HCAPLUS
CN Steel (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM B29C033-40
ICS B29C035-02; B29D023-00; C08G063-181; C08G063-199; C08G063-672; C08J005-00; C08L067-02; B29K021-00; B29K105-24; B29L023-00

CC 39-15 (Synthetic Elastomers and Natural Rubber)

ST polyester elastomer mandrel heat resistance; cyclohexanedimethanol polyester rubber mandrel heat resistance; hose polyester elastomer mandrel heat resistance; high pressure hose polyester rubber mandrel; **steel wire** reinforced hose polyester rubber mandrel

IT Hoses
(high-pressure, **steel wire**-reinforced; polyester elastomer mandrel with high heat resistance for manufacture of high-pressure hoses)

IT **12597-69-2, Steel**, uses
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(**wires**, reinforcement; polyester elastomer mandrel with high heat resistance for manufacture of high-pressure hoses)

L88 ANSWER 20 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:430158 HCAPLUS
DOCUMENT NUMBER: 133:77382
TITLE: **Steel wire** with multilayer corrosion-resistant coating
INVENTOR(S): Morimitsu, Masayuki
PATENT ASSIGNEE(S): Tokyo Rope Mfg. Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000178774	A2	20000627	JP 1998-361229	1998 1218
PRIORITY APPLN. INFO.:			JP 1998-361229	1998 1218

AB A wire is coated with a Zn-(6.0-12.0%) Al alloy layer and then

with a **thermoplastic polyester** resin film baked onto the outer surface of the alloy layer. The thickness of the resin layer is preferably 50-200 μm. In the manufacturing process, the alloy coating is air-shot blasted prior to coating with the polyester by an electrostatic powder coating method. The wire has improved corrosion resistance.

IC ICM C23F015-00
ICS C23C028-00; C23F011-00; C09D005-08

CC 55-6 (Ferrous Metals and Alloys)
Section cross-reference(s): 42

ST **steel wire** coating aluminum zinc alloy thermoplastic polymer corrosion

IT Coating materials
(anticorrosive; **steel wire** with multilayer corrosion-resistant coating)

IT Polyesters, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(coating containing; **steel wire** with multilayer corrosion-resistant coating)

IT Coating materials
(multilayer; **steel wire** with multilayer corrosion-resistant coating)

IT **Wires**
(**steel wire** with multilayer corrosion-resistant coating)

IT 9017-34-9, Ethylene glycol-isophthalic acid-terephthalic acid copolymer, SRU 24938-04-3, Ethylene glycol-isophthalic acid-terephthalic acid copolymer 53209-11-3 278596-36-4
RL: TEM (Technical or engineered material use); USES (Uses)
(coating containing; **steel wire** with multilayer corrosion-resistant coating)

IT 12597-69-2, **Steel**, processes
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(**steel wire** with multilayer corrosion-resistant coating)

L88 ANSWER 21 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:421367 HCAPLUS
DOCUMENT NUMBER: 133:46795
TITLE: **Steel wires** precoated with a metal interlayer and polymer for a **bright surface**
INVENTOR(S): Adriaensen, Ludo; Leplae, Alain; Van Loo, Gilbert; Vandewalle, Gerard
PATENT ASSIGNEE(S): N. V. Bekaert S. A., Belg.
SOURCE: PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000036177	A1	20000622	WO 1999-EP9718	1999 1209

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

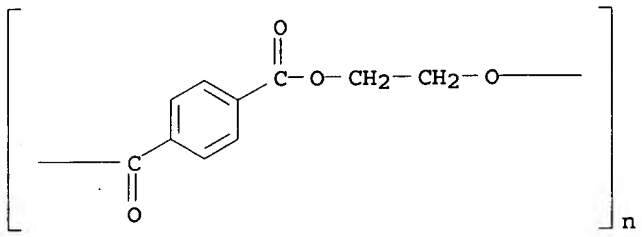
BR 9916217	A	20010911	BR 1999-16217	1999 1209
EP 1141436	A1	20011010	EP 1999-958182	1999 1209
EP 1141436	B1	20031126		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002532294	T2	20021002	JP 2000-588421	1999 1209
AT 255172	E	20031215	AT 1999-958182	1999 1209
EP 1380402	A2	20040114	EP 2003-101506	1999 1209
EP 1380402	A3	20040303		
EP 1380402	B1	20051019		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
ES 2212654	T3	20040716	ES 1999-958182	1999 1209
AT 307016	E	20051115	AT 2003-101506	1999 1209

PRIORITY APPLN. INFO.:	EP 1998-204259	A	1998 1215
	EP 1999-958182	A3	1999 1209
	WO 1999-EP9718	W	1999 1209

AB **Steel wires** are **coated** for surface brightness with: (a) metal or alloy interlayer, especially Zn; and (b) **transparent** polymer layer selected from **thermoplastic polyesters**, polyimides, polyamides, and polycarbonates, optionally with organic coloring dye. The interlayer **coating** is selected from **Cu**, Zn, Ni, **Sn**, or their alloys, and is typically applied by **hot-dip** melt **coating** of the **steel wire** followed by brightening and the polymer **coating.** The low-C **steel wire** is drawn to the intermediate diameter of 3.0 mm, **hot-dip** galvanized with Zn, and **drawn wet** in aqueous soap solution to 1.2 mm diameter with the associated brightening of Zn, followed by **coating** with **polyethylene terephthalate** layer 35 μm thick that is stable in bending the wire.

IT **25038-59-9, Polyethylene terephthalate**, uses **26062-94-2, Polybutylene terephthalate**
RL: TEM (Technical or engineered material use); USES (Uses)
(**coating** with; **steel wires** **coated** with metal interlayer and **transparent**

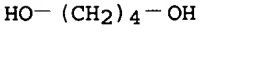
polymer for **bright surface**)
RN 25038-59-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 26062-94-2 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

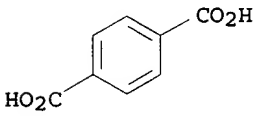
CM 1

CRN 110-63-4
CMF C4 H10 O2



CM 2

CRN 100-21-0
CMF C8 H6 O4



IT **7440-31-5**, **Tin**, uses **7440-50-8**, **Copper**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(interlayer, **coating** with; **steel wires coated** with metal interlayer and **transparent** polymer for **bright surface**)
RN 7440-31-5 HCAPLUS
CN Tin (8CI, 9CI) (CA INDEX NAME)

Sn

RN 7440-50-8 HCAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

IT **12597-69-2**, **Steel**, uses

RL: DEV (Device component use); USES (Uses)
(**wire, coating** of; **steel wires coated** with metal interlayer and **transparent** polymer for **bright surface**)
RN 12597-69-2 HCAPLUS
CN Steel (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IC ICM C23C002-38
ICS C23C002-26; C23C028-00; B05D007-20; B29C047-02
CC 55-6 (Ferrous Metals and Alloys)
Section cross-reference(s): 42
ST **steel wire** metal interlayer polymer **coating**; zinc brightening **steel wire coating** polymer
IT Wires
(bright finish on; **steel wires coated** with metal interlayer and **transparent** polymer for **bright surface**)
IT Polyamides, uses
Polycarbonates, uses
Polyesters, uses
Polyimides, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(**coating** with; **steel wires coated** with metal interlayer and **transparent** polymer for **bright surface**)
IT Plastics, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(thermoplastics, **clear**, **coating** with; **steel wires coated** with metal interlayer and **transparent** polymer for **bright surface**)
IT Galvanized **steel**
RL: TEM (Technical or engineered material use); USES (Uses)
(**wire, coating** of; **steel wires coated** with metal interlayer and **transparent** polymer for **bright surface**)
IT 9002-86-2, Polyvinyl chloride **25038-59-9**, **Polyethylene terephthalate**, uses **26062-94-2**, **Polybutylene terephthalate**
RL: TEM (Technical or engineered material use); USES (Uses)
(**coating** with; **steel wires coated** with metal interlayer and **transparent** polymer for **bright surface**)
IT 7440-02-0, Nickel, uses **7440-31-5**, **Tin**, uses **7440-50-8**, **Copper**, uses 7440-66-6, Zinc, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(interlayer, **coating** with; **steel wires coated** with metal interlayer and **transparent** polymer for **bright surface**)
IT **12597-69-2**, **Steel**, uses
RL: DEV (Device component use); USES (Uses)
(**wire, coating** of; **steel wires coated** with metal interlayer and **transparent** polymer for **bright surface**)
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

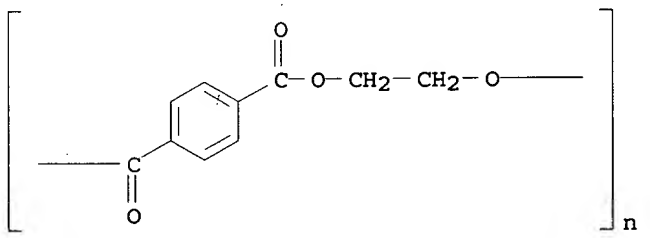
L88 ANSWER 22 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:167277 HCAPLUS

DOCUMENT NUMBER: 132:201129
TITLE: Electromagnetic shielding mesh filter and plasma display panel equipped with the filter
INVENTOR(S): Hasegawa, Hideki; Kokame, Akiyoshi; Onda, Satoshi
PATENT ASSIGNEE(S): Mitsubishi Rayon Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000077888	A2	20000314	JP 1998-248267	1998 0902
PRIORITY APPLN. INFO.:			JP 1998-248267	1998 0902

AB In the filter comprising a laminate of knitted or woven mesh fabric and ≥1 **transparent** glass or polymer substrate, the mesh fabric is made of 15-40 μm-diameter metal wire with a blackened surface and ≥1 of the substrate shows ≥50% average transmittance at 400-650 nm and ≤30% at 850-1000 nm. Also claimed is a plasma display panel in which the above filter is placed so that angle of vertical or horizontal direction of the pixels to the direction of longitudinally or horizontally arranged metal wires is 15-25°. The filter shows sufficient electromagnetic-shielding effect with high transparency to visible light and near-IR-shielding effect.

IT **25038-59-9**, Poly(ethylene terephthalate), uses
RL: DEV (Device component use); USES (Uses)
(ITO-**coated**, laminate, filter substrate; electromagnetic shielding metal mesh filter for plasma display panel)
RN 25038-59-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IT **7440-50-8**, **Copper**, uses
RL: DEV (Device component use); USES (Uses)
(wire, surface-blackened by nickel plating; electromagnetic shielding metal mesh filter for plasma display panel)
RN 7440-50-8 HCAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

IC ICM H05K009-00
ICS G02B001-10; G02B005-22; G09F009-313; H01J011-02
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT **Polyesters**, uses
RL: DEV (Device component use); USES (Uses)
(ITO-**coated**, laminate, filter substrate; electromagnetic shielding metal mesh filter for plasma display panel)
IT **25038-59-9**, Poly(ethylene terephthalate), uses
RL: DEV (Device component use); USES (Uses)
(ITO-**coated**, laminate, filter substrate; electromagnetic shielding metal mesh filter for plasma display panel)
IT 50926-11-9, ITO
RL: DEV (Device component use); USES (Uses)
(PET **film coated** with, laminate, filter substrate; electromagnetic shielding metal mesh filter for plasma display panel)
IT 7440-02-0, Nickel, uses
RL: DEV (Device component use); USES (Uses)
(**copper** wire with blackened surface by nickel plating; electromagnetic shielding metal mesh filter for plasma display panel)
IT **7440-50-8**, **Copper**, uses
RL: DEV (Device component use); USES (Uses)
(wire, surface-blackened by nickel plating; electromagnetic shielding metal mesh filter for plasma display panel)
IT 11107-04-3, SUS 316 11109-50-5, SUS 304 12597-68-1, Stainless **steel**, uses
RL: DEV (Device component use); USES (Uses)
(**wire**, surface-blackened; electromagnetic shielding metal mesh filter for plasma display panel)

L88 ANSWER 23 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:865667 HCAPLUS
DOCUMENT NUMBER: 123:347141
TITLE: The influence of marine environments on metals and fabricated **coated** metal products, freely exposed and partially sheltered
AUTHOR(S): King, George A.; O'Brien, David J.
CORPORATE SOURCE: Division Building Construction & Engineering (DBCE), Commonwealth Scientific and Industrial Research Organisation (CSIRO), Highett, 3190, Australia
SOURCE: ASTM Special Technical Publication (1995), STP 1239(Atmospheric Corrosion), 167-92
CODEN: ASTTA8; ISSN: 0066-0558
PUBLISHER: American Society for Testing and Materials
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Corrosivity surveys have demonstrated that in Australia marine environments represent by far the main corrosion hazard to metals and **coated** metal products. Also field inspection of some com. product has revealed cases of significant early corrosion in unwashed areas. Existing published data on the relative performance of metals and prepainted **coated** metals, especially as fabricated building products, is inadequate to meet the needs of those faced with decisions regarding product selection. A ten-year industrially funded project was initiated to address this by studying the comparative performance of generic classes of metal products and alternative finishes, and this paper presents some interim results. Twenty-two com. products based on galvanized steel, 5% and 55% aluminum-zinc **coated** steel, stainless steels and aluminum, were obtained from five countries,

some prepainted with acrylic, **polyester**, silicon-modified **polyester** (SMP), or polyvinyldifluoride (PVF2) topcoats, and two with a polyvinylflouride (PVF) or polyvinylchloride (PVC) **film** laminate. All were fabricated into "bent" specimens, the test piece designed to simulate the types of distress metal products encounter during manufacture and building. Initial microcracking at bends and Erichsen domes was recorded photog. A complex aluminum **extrusion** in four finishes was also exposed and measurements of initial **color** and gloss were made for all specimens. Materials exposed for mass loss measurements include "mild" steel, low-alloy copper-steel, zinc, 5% and 55% aluminum-zinc **coated steel**, and "**wire**-on-bolt" assemblies. Specimens are exposed at three marine sites (severe, moderate and mild) both in the open and under a shelter designed to permit deposition of salt and particulates but prevent rainwashing. A glass canopy roof enables some UV degradation of the organic **coatings**. After one year the shelters have produced a remarkable deterioration of the **coated** steel products at the severe and moderate sites, the sheltered corrosion rates being up to seven times those in the open. Of the three **coatings**, the 55% aluminum-zinc consistently has the lowest corrosion rate which on average is about one-third that of zinc. Strong relationships were established between the corrosion rates and the measured levels of airborne chloride.

CC 56-10 (Nonferrous Metals and Alloys)

ST galvanized steel corrosion marine environment; aluminum zinc **coating** steel corrosion

IT Galvanized iron and steel
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(marine environment effect on metals and fabricated **coated** metal products, freely exposed and partially sheltered)

IT Acrylic polymers, processes
Polyesters, processes
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(marine environment effect on metals and fabricated **coated** metal products, freely exposed and partially sheltered)

IT 42611-25-6, Aluminum 5, zinc 95 52308-11-9
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(**coating**; marine environment effect on metals and fabricated **coated** metal products, freely exposed and partially sheltered)

IT 11107-04-3, AISI 316 11109-50-5, AISI 304 11109-52-7, AISI 430 37321-73-6, AA 3004
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(marine environment effect on metals and fabricated **coated** metal products, freely exposed and partially sheltered)

IT 9002-86-2, Polyvinylchloride 24981-14-4, Ethene, fluoro-, homopolymer 128220-91-7, Ethene, difluoro-, homopolymer
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(marine environment effect on metals and fabricated **coated** metal products, freely exposed and partially sheltered)

L88 ANSWER 24 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1993:500733 HCAPLUS
DOCUMENT NUMBER: 119:100733
TITLE: Manufacture of **wires** from tool **steel** from powders
INVENTOR(S): Abe, Tadashi
PATENT ASSIGNEE(S): Hitachi Metals Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05105907	A2	19930427	JP 1991-265698	1991 1015

PRIORITY APPLN. INFO.: JP 1991-265698 1991 1015

AB The title process comprises (1) pressing and densifying powdered raw materials containing high-speed steels of prescribed compns., (2) hot rolling to give wires and hot drawing in gas atmospheric, (3) removing thin oxide coatings, and (4) cold drawing by ≥50% draft including process annealing. The hot drawing prevents scales generation on the wire surfaces, and the manufacture provides wires with **bright surfaces.**

IT **12597-69-2P, Steel,** uses
RL: PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)
(**wires,** high-speed, manufacture of)

RN 12597-69-2 HCAPLUS
CN Steel (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM B22F003-24
ICS B21C001-00; B21C009-00; B22F001-00; B22F003-14; C21D008-06
CC 55-4 (Ferrous Metals and Alloys)
ST **steel wire** high speed manuf; scale prevention **steel wire** manuf
IT Scale (coating)
(oxide, on steels, prevention of, for high-speed **steel wires**)
IT **Wire**
(**steel,** high-speed, manufacture of)
IT **12597-69-2P, Steel,** uses 149374-37-8P 149374-38-9P
RL: PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)
(**wires,** high-speed, manufacture of)

L88 ANSWER 25 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN ✓
ACCESSION NUMBER: 1989:538930 HCAPLUS
DOCUMENT NUMBER: 111:138930
TITLE: Method and bath for phosphating steel, zinc and zinc alloys, and aluminum for cold forming
INVENTOR(S): Hosemann, Kurt; Opitz, Reinhard
PATENT ASSIGNEE(S): Collardin, Gerhard, G.m.b.H., Fed. Rep. Ger.
SOURCE: Eur. Pat. Appl., 6 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 324395	A1	19890719	EP 1989-100228	19890107
EP 324395	B1	19921216		
R: AT, BE, DE, ES, FR, GB, GR, IT, NL, SE				
DE 3800835	A1	19890727	DE 1988-3800835	19880114
AT 83509	E	19930115	AT 1989-100228	19890107
AU 8928508	A1	19890720	AU 1989-28508	19890113
AU 604395	B2	19901213		
BR 8900148	A	19890912	BR 1989-148	19890113
US 4944813	A	19900731	US 1989-297155	19890113
JP 01219172	A2	19890901	JP 1989-9621	19890117

PRIORITY APPLN. INFO.:

DE 1988-3800835	A	19880114
EP 1989-100228	A	19890107

AB The aqueous bath contains Ca2+ 10-40, Zn2+ 10-40, PO43- 10-100, NO3- 10-100, organic nitro compds. (m-nitrobenzenesulfonate, nitroguanidine) 0.1-2.0, Ni2+ 0.01-10, and simple and/or complex F- 0.01-10 g/L. The pH of the bath is 2.0-3.8, the ratio of free:total acid is 1:(4-100), and the weight ratio of Zn2+:Ca2+ is 1:(0.5-1.5) and preferably 1:1. The coating is carried out at 30-70° and to an extent of 3-9 g/m2. **Steel wires** phosphated in the invention baths and drawn had **bright** and **shiny surfaces.**

IT **12597-69-2**
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(**wire, steel**, phosphating of, for drawing, bath for)

RN 12597-69-2 HCAPLUS
CN Steel (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM C23C022-22
CC 56-6 (Nonferrous Metals and Alloys)
IT **Wire**
(**steel**, phosphating of, for drawing, bath for)
IT **12597-69-2**
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(**wire, steel**, phosphating of, for drawing, bath for)

L88 ANSWER 26 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1989:61704 HCAPLUS
DOCUMENT NUMBER: 110:61704
TITLE: Rapid electrolytic descaling process for stainless **steel wire** rods
AUTHOR(S): Rau, R. H. G.
CORPORATE SOURCE: Mukand Iron and Steel Works Ltd., Bombay, India
SOURCE: Ironmaking and Steelmaking (1988), 15(4), 202-4
CODEN: IMKSB7; ISSN: 0301-9233
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The quality of wire rods obtained through the novel rapid electrolytic descaling is excellent with a clean, smooth, and **bright surface** without any attack on base metal.
CC 55-10 (Ferrous Metals and Alloys)
ST stainless **steel wire** rod descaling; electrolytic descaling stainless steel rod
IT **Wire**
(stainless **steel** rod, electrolytic descaling of)
IT Scale (coating)
(mill, electrolytic removal of, from stainless **steel wire** rod)
IT 12597-68-1
RL: USES (Uses)
(**wire**, stainless **steel** rod, electrolytic descaling of)

L88 ANSWER 27 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN ✓
ACCESSION NUMBER: 1988:496976 HCAPLUS
DOCUMENT NUMBER: 109:96976
TITLE: Drawing of wires from chemically pretreated steel rods
INVENTOR(S): Nishi, Eiichi; Aso, Fumio; Nakagawa, Hiroyoshi
PATENT ASSIGNEE(S): Nihon Parkerizing Co., Ltd., Japan
SOURCE: Ger. Offen., 4 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3737368	A1	19880511	DE 1987-3737368	1987 1104
US 4808245	A	19890228	US 1987-116087	1987 1103
EP 270836	A1	19880615	EP 1987-116218	1987 1104
EP 270836	B1	19910717		
R: AT, BE, CH, DE, ES, FR, IT, LI, NL, SE				
AT 65267	E	19910815	AT 1987-116218	1987 1104
CA 1313994	A1	19930302	CA 1987-551157	1987 1105
JP 63238921	A2	19881005	JP 1987-282062	1987 1110
JP 2510629	B2	19960626		

PRIORITY APPLN. INFO.: JP 1986-265656 A 1986 1110

EP 1987-116218 A 1987 1104

AB Before soaping for lubrication, a film of aqueous dispersion containing a colloidal Ti compound is applied and dried on the rods for wire drawing. This method results in a **shiny surface**, and does not affect the lubricant or drawing efficiency. Thus, aqueous dispersion of titanyl sulfate was cooled, mixed with Na2HPO4, and adjusted to pH 8.5 with H2SO4. The resulting slurry was dried at 100-120° to a moisture content of 1.5%, and then milled and dispersed in water. Rod from SWRCH 62 A-type steel of 4 mm diameter was etched in 15% HCl, rinsed with water, immersed in the dispersion for 1 min, and dried. The coated rod was soaped, and drawn to a diameter of 2 mm at 300 m/min. The wire surface showed a good shine compared with conventionally coated rod method.

IT **12597-69-2**
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(**wire, steel**, rods coated with colloidal titanium compound for drawing of)

RN 12597-69-2 HCAPLUS
CN Steel (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM C23F017-00
ICS B21C009-00; C10M103-06; C10M105-22; C23C022-62
ICI C10M105-22, C10N040-24
CC 55-11 (Ferrous Metals and Alloys)
ST wire drawing colloidal coating rod; drawing wire titanium alkali phosphate; phosphate treatment rod drawing wire; **steel wire** drawing rod coating

IT Lubricants
(colloidal coating, on **steel** rods for **wire** drawing)

IT **Wire**
(**steel**, rods coated with colloidal titanium compound for drawing of)

IT 7722-88-5
RL: USES (Uses)
(colloidal coating from titanyl sulfate and sodium carbonate and, on **steel** rod for **wire** drawing)

IT 7779-90-0
RL: USES (Uses)
(colloidal coating mixture containing, on steel rods for **shiny surface** in wire drawing)

IT 7558-79-4
RL: USES (Uses)
(colloidal coating with titanyl sulfate and sodium carbonate and, on **steel** rods for **wire** drawing)

IT 7440-32-6D, Titanium, compds.
RL: USES (Uses)
(colloidal, coating with, on steel rods for **shiny surface** of drawn wire)

IT 1592-23-0, Calcium stearate
RL: USES (Uses)
(lubricant, soaping with, of colloidal coating on **steel** rods for **wire** drawing)

IT 12597-69-2
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(lubricants, colloidal coating, on **steel** rods for

wire drawing)
IT 12743-67-8, uses and miscellaneous 39345-21-6, uses and miscellaneous 116111-42-3, SWRS 100A, uses and miscellaneous
RL: DEV (Device component use); USES (Uses)
(wire from, drawing of soaped rod for, **surface** pretreatment for **shiny surface** in)
IT **12597-69-2**
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(**wire**, **steel**, rods coated with colloidal titanium compound for drawing of)

L88 ANSWER 28 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1987:411309 HCAPLUS
DOCUMENT NUMBER: 107:11309
TITLE: Process for annealing ferrous wire
INVENTOR(S): Stanescu, Mircea S.; Weinstein, David J.; Cornelssen, Cornelius W.
PATENT ASSIGNEE(S): BOC Group, Inc., USA
SOURCE: U.S., 5 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4648914	A	19870310	US 1984-662855	1984 1019

PRIORITY APPLN. INFO.: US 1984-662855 1984 1019

AB Soot deposits are prevented and residual lubricants are removed when **steel wires** are annealed by: (a) heating in a flowing N atmospheric to .apprx.1320° F to vaporize residues, optionally with addition of hydrocarbon gas to prevent oxidation; (b) cooling the wire to 950-1050° F; (c) addition of O gas to the N atmospheric for removal of C-rich residue by oxidation; and (d) final cooling to obtain a **bright surface** with minor oxidation A **steel wire** can be annealed in a bell furnace in 10-12 h.
IT **12597-69-2**
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(**wire**, **steel**, annealing of, as-drawn oxidation for soot removal in)
RN 12597-69-2 HCAPLUS
CN Steel (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IC ICM C21D001-26
INCL 148016000
CC 55-5 (Ferrous Metals and Alloys)
ST **steel wire** annealing lubricant vaporization; soot oxidn **steel wire** annealing
IT Controlled atmospheres
(annealing in, of **steel wire**, drawing lubricant vaporization in)
IT Lubricants
Soot
(on **steel wire**, annealing with removal of, oxidation in)

IT **Wire**
(**steel**, annealing of, as-drawn oxidation for soot removal in)
IT 12597-69-2
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(lubricants, on **steel wire**, annealing with removal of, oxidation in)
IT **12597-69-2**
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(**wire, steel**, annealing of, as-drawn oxidation for soot removal in)

L88 ANSWER 29 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1985:189020 HCAPLUS
DOCUMENT NUMBER: 102:189020
TITLE: Wire rope having a durable marker
INVENTOR(S): Graetz, Reinhard
PATENT ASSIGNEE(S): Hoechst A.-G. , Fed. Rep. Ger.
SOURCE: U.S., 5 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4498282	A	19850212	US 1982-450298	1982 1216
FI 8204333	A	19830619	FI 1982-4333	1982 1216
PRIORITY APPLN. INFO.:			DE 1981-8136921 U	1981 1218

AB Strand markers for the wire rope indicate useful information such as strength, and are durable for extended times at temps. ≤300°. The markers are in the form of a polyester **film** (preferably **polyethylene terephthalate** [**25038-59-9**]) carrying an abrasion-resistant impression. The film is in the form of a tape 3-4 mm wide and 50-100μ thick wound around a **steel wire** support element 100-200μ diameter in a spirally overlapping manner, and worked into a gap between bundles of strands in the wire rope. The wire **core** has a tensile strength of 60-75% of the wire rope value.
IC ICM B32B001-00
ICS B32B015-00; D07B001-06; D02G003-00
INCL 057218000
CC 55-13 (Ferrous Metals and Alloys)

L88 ANSWER 30 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1985:117693 HCAPLUS
DOCUMENT NUMBER: 102:117693
TITLE: Beryllium in **hot-dip** galvanizing bath for ferrous alloys
PATENT ASSIGNEE(S): Sumitomo Electric Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 2 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59205459	A2	19841121	JP 1983-79683	1983 0507
PRIORITY APPLN. INFO.:			JP 1983-79683	1983 0507

AB **Hot-dip** galvanizing is done in a Zn bath containing 0.05-0.1% Be. Be inhibits oxidation of the bath surface and increases wettability of the bath to give products having a smooth defect-free surface with excellent appearance. The products are useful as wire, bar, tapes, sheet, and tubes. Thus, a **steel wire** 3.1 mm diameter was pickled, treated with an aqueous solution containing NH4Cl and ZnCl2 for flux coating, and **hot-dip** galvanized at 25 m/min in a Zn bath containing 0.006% Be. The wire had a smooth **bright surface** without defects.
IC C23C001-02; C22C018-00
CC 55-6 (Ferrous Metals and Alloys)
ST beryllium addn galvanizing bath steel; **wire steel** galvanizing bath
IT **Wire**
(**steel**, galvanizing of, bath for)
IT Galvanization
(**hot-dip**, of steel, beryllium in zinc bath for)

L88 ANSWER 31 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1985:96538 HCAPLUS
DOCUMENT NUMBER: 102:96538
TITLE: Thermoplastic or unsaturated polyster injection molding compositions containing electrically conductive fibers
INVENTOR(S): Poetsch, Jan
PATENT ASSIGNEE(S): Audi NSU Auto Union A.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 4 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3322016	A1	19841220	DE 1983-3322016	1983 0618
DE 3322016	C2	19860710		
PRIORITY APPLN. INFO.:			DE 1983-3322016	1983 0618

AB Structural parts for electrostatic coating consist of **thermoplastic** or unsatd. **polyesters** containing homogeneously distributed, elec. conductive fibers. Stainless steel fibers are suitable.
IC C08J005-00; C08K007-06; C08L067-06; B05D001-04; B05D007-02
CC 37-6 (Plastics Manufacture and Processing)
ST polyester reinforced elec conductive; electrostatic coating

polyester conductive; stainless **steel wire**
polyester; **steel wire** polyester conductive
IT **Wire**
(stainless **steel**, in polyesters for elec. conductivity)

L88 ANSWER 32 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN ✓
ACCESSION NUMBER: 1983:202573 HCAPLUS
DOCUMENT NUMBER: 98:202573
TITLE: **Hot-dip** coating with zinc-aluminum-tin alloys
PATENT ASSIGNEE(S): Kobe Steel, Ltd., Japan; Amatei Inc.
SOURCE: Jpn. Kokai Tokkyo Koho, 2 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57210964	A2	19821224	JP 1981-93501	1981 0617
JP 60057503	B4	19851216		
PRIORITY APPLN. INFO.:			JP 1981-93501	1981 0617

AB **Steel wires** are dipped into molten Zn-Al-Sn alloys, and quenched with air after the coated alloy is solidified, to increase the surface luster. Thus, SWRM 6 [59220-32-5] wire was dipped into molten Zn-15 Al-1% Sn [85783-02-4] bath for 20 s, and air-cooled to 100° at 798°/min after the coating solidified, to obtain a smooth and **bright surface.**
IC C23C001-02; C23C001-04; C23C001-08
CC 55-6 (Ferrous Metals and Alloys)
ST zinc aluminum tin coating steel; **wire** coating **steel** luster
IT **Wire**
(**steel**, zinc-aluminum-tin alloy on, luster of)
IT Coating process
(**hot-dipping**, of **steel wire**, zinc-aluminum-tin alloy for)
IT 59220-32-5, uses and miscellaneous
RL: USES (Uses)
(coating of wire from, zinc-aluminum-tin alloy melt for **hot-dip**)
IT 85783-02-4
RL: USES (Uses)
(coating with molten, **hot-dip**, of **steel wire**, luster in)

L88 ANSWER 33 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN ✓
ACCESSION NUMBER: 1980:477444 HCAPLUS
DOCUMENT NUMBER: 93:77444
TITLE: Bright aluminum-coated **steel wire**
INVENTOR(S): Kanbe, Ryozo; Fujii, Hidenori
PATENT ASSIGNEE(S): Kokoku Steel Wire, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 54162663	A2	19791224	JP 1978-72497	1978 0614
JP 57007015	B4	19820208		
PRIORITY APPLN. INFO.:			JP 1978-72497 A	1978 0614

AB **Steel wires** having a sorbite structure are **hot dipped** in molten Al and cold drawn by both dry process drawing and wet process drawing. A Na system metal soap-base lubricant is used in the dry process drawing, while a lubricant containing a metal stearate soap and surfactant is used in the wet process. Thus, a 3.3 mm-diameter SSWRH67B [74433-45-7] **steel wire** was patented, descaled, dipped in molten Al at 665°, drawn 5 times to 1.73 mm diameter by the dry process, and drawn 4 times to 1.20 mm diameter by the wet process. The wire had a **bright** Al **surface** and bend strength of 169.7 kg/mm2.

IC B21F019-00; C23C001-08
CC 55-6 (Ferrous Metals and Alloys)
ST aluminum coating **steel wire**
IT Coating process
(**hot-dip**, of **steel wire** with aluminum)
IT 74433-45-7, uses and miscellaneous
RL: USES (Uses)
(coating of wire of, with bright aluminum by **hot dipping**)
IT 7429-90-5, uses and miscellaneous
RL: USES (Uses)
(coating with bright, on **steel wire** by **hot dipping**)

L88 ANSWER 34 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:	1978:583468 HCAPLUS
DOCUMENT NUMBER:	89:183468
TITLE:	Study of possibilities for improvement of the surface quality of **steel wire** after heat treatment
AUTHOR(S):	Ujma, Janina; Blaszczyk, Krystyna; Mazanek, Alicja; Sankowski, Andrzej
CORPORATE SOURCE:	Inst. Metall., Tech. Univ. Czestochowa, Czestochowa, Pol.
SOURCE:	Zeszyty Naukowe Politechniki Czestochowskiej, Nauki Podstawowe (1976), 19, 55-61 CODEN: ZNNPA2
DOCUMENT TYPE:	Journal
LANGUAGE:	Polish

AB The effects of the etching and rinsing technols. on the surface quality of **steel** [12724-44-6] **wire** subjected to heat treatment were evaluated. Tests were made on **steel wire** specimens containing C 0.09, Mn 0.35, Si traces, P 0.018, and S 0.023%, annealed at 830° for <30 s, followed by etching in 10.15% HCl with and without inhibitors, and rinsing. A favorable effect was shown by addition of 10% Rumil (composition: Na metasilicate 37, NaOH 55, and Na tripolyphosphate 8% to the rinsing bath, manifested by a **bright**, silverlike **surface** of the specimens after etching and rinsing. Particulars are given of the compns. of the etching and rinsing solns., as well as the parameters of carrying out these

operations.
CC 55-6 (Ferrous Metals and Alloys)
ST **steel wire** surface quality; etching
steel wire; hydrochloric acid etching
steel wire; sodium salt rinsing **steel wire**; metasilicate sodium rinsing **steel wire**; hydroxide sodium rinsing **steel wire**; polyphosphate sodium rinsing **steel wire**
IT Etching
(of **steel wire**, surface quality in relation to)
IT **Wire**
(**steel**, surface quality in relation to etching and rinsing of)
IT 7647-01-0, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(etching by, of **steel wire**, surface quality in relation to)
IT 1310-73-2, uses and miscellaneous 6834-92-0 7758-29-4
RL: USES (Uses)
(rinsing of etched **steel wire** in solns. containing, surface quality in relation to)

L88 ANSWER 35 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1977:519351 HCAPLUS
DOCUMENT NUMBER: 87:119351
TITLE: Coating process
AUTHOR(S): Anon.
CORPORATE SOURCE: UK
SOURCE: Research Disclosure (1977), 160, 55 (No. 16075)
CODEN: RSDSBB; ISSN: 0374-4353
DOCUMENT TYPE: Journal; Patent
LANGUAGE: English
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RD 160075		19770810		
			RD 1977-160075	

PRIORITY APPLN. INFO.: 19770810
AB **Thermoplastic polyesters**, such as poly(tetramethylene terephthalate) [24968-12-5], are suitable for the coating process for **steel wire** as described in British patent 1,322,114.
IT **26062-94-2**
RL: TEM (Technical or engineered material use); USES (Uses)
(**coatings**, for **steel wire**)
RN 26062-94-2 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

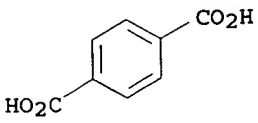
CM 1

CRN 110-63-4
CMF C4 H10 O2

HO— $(CH_2)_4$ —OH

CM 2

CRN 100-21-0
CMF C8 H6 O4



CC 42-9 (Coatings, Inks, and Related Products)
ST polytetramethylene terephthalate coating wire; **steel wire** coating polyester
IT **Wire**
(coating of **steel**, with **thermoplastic polyesters**)
IT Coating materials
(**polyesters, thermoplastic**, for **steel wire**)
IT 24968-12-5 **26062-94-2**
RL: TEM (Technical or engineered material use); USES (Uses)
(**coatings**, for **steel wire**)

L88 ANSWER 36 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1977:76898 HCAPLUS
DOCUMENT NUMBER: 86:76898
TITLE: Low porosity cast wire
INVENTOR(S): Dobo, Emerick J.
PATENT ASSIGNEE(S): Monsanto Co., USA
SOURCE: Can., 16 pp.
CODEN: CAXXA4
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 995030	A1	19760817	CA 1973-189056	1973 1228
US 3811850	A	19740521	US 1972-319133	1972 1229
US 3904381	A	19750909	US 1973-422933	1973 1207
ZA 7309625	A	19741127	ZA 1973-9625	1973 1220
NL 7317585	A	19740702	NL 1973-17585	1973 1221
BE 809247	A1	19740628	BE 1973-139388	1973 1228
DE 2364944	A1	19740808	DE 1973-2364944	1973 1228
ES 421852	A1	19760501	ES 1973-421852	1973 1228
AT 7310892	A	19761015	AT 1973-10892	1973

				1228
AT 337232	B	19770627		
SE 389979	B	19761129	SE 1973-17522	
				1973
				1228
GB 1460750	A	19770106	GB 1973-60086	
				1973
				1228
DD 108911	C	19741012	DD 1973-175724	
				1973
				1229
FR 2212197	A1	19740726	FR 1974-76	
				1974
				0102
JP 49125226	A2	19741130	JP 1974-4572	
				1974
				0104
IN 138625	A	19760306	IN 1974-CA198	
				1974
				0130
CA 994982	A2	19760817	CA 1975-237597	
				1975
				1010
PRIORITY APPLN. INFO.:			US 1972-319133	A
				1972
				1229
			US 1973-422933	A
				1973
				1207
			CA 1973-189056	A3
				1973
				1228

AB Production of small-diameter (<0.8 mm) cast alloy-**steel wire** of porosity ≤0.06 volume% is described. The porosity is greatly reduced when the **extrusion** is conducted at a high velocities, e.g. >2400 ft/min. Such rates have not been previously attainable, but are achieved by continuous **extrusion** of the melt through a die to form a filamentary jet, passing the jet into a zone occupied by a pressurized gas, passing the jet cocurrently with the pressurized gas through a supersonic nozzle into a zone occupied by an atmospheric capable of causing a film to form around the jet surface by reaction with it, then passing the jet through a converging passageway into a 2nd zone occupied by the film-forming atmospheric For example, 5%-Si steel [11100-68-8] at 1432° was **extruded** through a 9-mil orifice at 1440° by using a head pressure of 80 psig and an attenuating-gas (68:32 CO-He mixture) pressure of 68 psig (melt flow-rate 65 g/min). Wire (4 mils diameter), which was flexible and had a **bright surface** was produced at 3200 ft/min. Likewise 1%-Al steel [12768-43-3] filaments were **extruded** at 3500 ft/min by using Ar at 100 psig and He at 76.8 psig, which contacted the jet at a 90° angle and then flowed cocurrently with it through a supersonic nozzle into a space supplied with CO as the film-forming gas. The enthalpy conversion of the gas as it passes through the plate plays a large role in the rates obtained.

CC 55-11 (Ferrous Metals and Alloys)
Section cross-reference(s): 69

ST cast **steel wire** nonporous; porosity low **steel wire**; **extrusion steel wire**; silicon **steel wire** prodn; aluminum **steel wire** prodn

IT Cast metals and alloys

RL: USES (Uses)
(aluminum steels, **extrusion** of low-porosity wire from)
IT Cast metals and alloys
RL: USES (Uses)
(silicon steel, **extrusion** of low-porosity wire from)
IT **Wire**
(**steel**, **extrusion** of low-porosity cast)
IT 630-08-0, uses and miscellaneous 7440-37-1, uses and miscellaneous 7440-59-7, uses and miscellaneous
RL: USES (Uses)
(**extrusion** with, in low-porosity cast steel production)
IT 11100-68-8, uses and miscellaneous 12768-43-3, uses and miscellaneous
RL: USES (Uses)
(wire, **extrusion** of low-porosity cast)

L88 ANSWER 37 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1976:511316 HCAPLUS
DOCUMENT NUMBER: 85:111316
TITLE: Decarburization free annealing of wire
AUTHOR(S): Koerber, Guntram; Grohmann, Paul
CORPORATE SOURCE: Fed. Rep. Ger.
SOURCE: Gas Aktuell (1974), 8, 15-19
CODEN: GAAKDX; ISSN: 0340-6067
DOCUMENT TYPE: Journal
LANGUAGE: German
AB Factors responsible for decarburization of steel [12597-69-2] during annealing in pure N were studied. Control of decarburization depends on the relative chemical potential of C in the atmospheric compared with that in the steel, which depends on the oxidizing capacity of the protective gas. The thermodns. of formation and decomposition of CO, CO2, H2O, and hydrocarbons such as CH4 [74-82-8] and C3H8 [74-98-6] were analyzed in the C-H-O system to delineate regions having oxidizing, reducing, carburizing, or decarburizing abilities in annealing of steel at ordinary temps. N enriched with small amts. of hydrocarbon vapor gave decarburization-free annealing and a **bright surface.** N + 1.5 volume% CH4 or 0.5 volume% C3H8 gave optimum results in the annealing of **steel wire** in most cases. Suitable annealing procedures can be developed to give the desired surface conditions by varying the composition of the N-hydrocarbon mixture with the initial surface conditions and the work load.
CC 55-5 (Ferrous Metals and Alloys)
Section cross-reference(s): 69
ST decarburization annealing **steel wire**
IT **Wire**
(**steel**, decarburization-free annealing of)

L88 ANSWER 38 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1976:497748 HCAPLUS
DOCUMENT NUMBER: 85:97748
TITLE: Flux-cored welding wire for gas-shielded electric arc welding
INVENTOR(S): Ballass, John T.; Georgetti, Richard A.
PATENT ASSIGNEE(S): Unicore, Inc., USA
SOURCE: U.S., 4 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

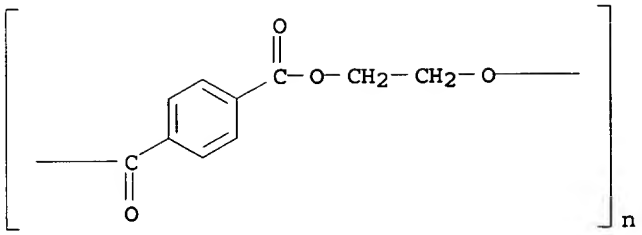
US 3935421	A	19760127	US 1974-514195	1974 1011
PRIORITY APPLN. INFO.:			US 1970-53016 A2	1970 0707
			US 1972-250240 A2	1972 0504

AB A novel flux-cored welding wire for CO2-shielded elec. arc welding of structural steel has a **shiny**, metallic-appearing **surface** on a low-C steel sheath. The core flux contains ferromanganese [12604-53-4] 6-20, ferrosilicon [8049-17-0] 6-20, MnO 1-20, a fluoride (NaF, K-Al fluoride, etc.) 0.5-5% and the balance rutile [1317-80-2]. The wire is especially useful in out-of-position welding to produce sound welds combining good strength and high notch toughness at subzero temps.
IC B23K
INCL 219146000
CC 55-10 (Ferrous Metals and Alloys)
ST **wire** welding structural **steel**; flux welding **wire steel**

L88 ANSWER 39 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1975:595403 HCAPLUS
DOCUMENT NUMBER: 83:195403
TITLE: **Polyethylene terephthalate** plastic-**coated** wire
INVENTOR(S): Van Vlaenderen, Robert
PATENT ASSIGNEE(S): N. V. Bekaert S. A., Belg.
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3893642	A	19750708	US 1973-336469	1973 0228
PRIORITY APPLN. INFO.:			US 1971-108355 A2	1971 0121

AB Poly(ethylene terephthalate) (I) [**25038-59-9**]-**coated steel wire** was manufactured by heating the wire to an elevated temperature, passing the heated wire through a heated and pressurized **extrusion** zone in which molten I was coated on the heated wire, and cooling the coated wire at a rate sufficient to maintain I primarily (≥95%) in the amorphous state. The product was useful in the manufacture of barbed wire, wire mesh, etc.
IT **25038-59-9**, uses and miscellaneous
RL: USES (Uses)
(**coating** with, of **steel wire**)
RN 25038-59-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



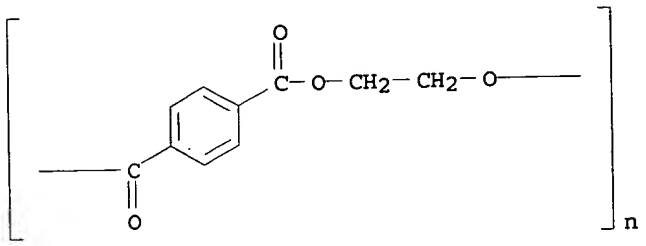
IC B21B
INCL 245002000
CC 42-9 (Coatings, Inks, and Related Products)
Section cross-reference(s): 55
ST **steel wire** polyester coating;
polyethylene terephthalate coating
wire
IT **Wire**
(coating of **steel**, with poly(ethylene terephthalate))
IT Coating process
(of **steel wire**, with poly(ethylene terephthalate))
IT **25038-59-9**, uses and miscellaneous
RL: USES (Uses)
(**coating** with, of **steel wire**)

L88 ANSWER 40 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1974:537697 HCAPLUS
DOCUMENT NUMBER: 81:137697
TITLE: **Polyethylene terephthalate** plastic **coated** wire
INVENTOR(S): Van Vlaenderen, Roger
PATENT ASSIGNEE(S): N. V. Bekaert S. A.
SOURCE: U.S., 5 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3829545	A	19740813	US 1973-336799	1973 0228
PRIORITY APPLN. INFO.:			US 1971-108355 A3	1971 0121

AB A plastic-coated wire was prepared by heating the wire to be coated to an elevated temperature, passing the heated wire through an extension zone maintained at an elevated temperature and pressure in which a polyester plastic in molten condition was coated on the heated wire, and cooling the coated wire at a rate sufficient to maintain the plastic primarily in the amorphous state. Thus, a **steel wire** was **coated** with **polyethylene terephthalate** [**25038-59-9**] in which the **coating** was .geq.80% amorphous and 0.1-0.3 mm thick. The improved wire product could be used for barbed wire, wire mesh, wire netting, wire fences, etc.
IT **25038-59-9**, uses and miscellaneous
RL: TEM (Technical or engineered material use); USES (Uses)
(**coatings**, on wire)
RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenylenecarbonyl) (9CI)
(CA INDEX NAME)



IC B29F
INCL 264174000
CC 42-9 (Coatings, Inks, and Related Products)
Section cross-reference(s): 55
ST **polyethylene terephthalate coating**
wire; polyester coating **steel wire**
IT **25038-59-9**, uses and miscellaneous
RL: TEM (Technical or engineered material use); USES (Uses)
(**coatings**, on wire)

L88 ANSWER 41 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1974:85970 HCAPLUS
DOCUMENT NUMBER: 80:85970
TITLE: High vacuum as the last step in the development of bright annealing
AUTHOR(S): Nikolic, Miroslav
CORPORATE SOURCE: Jesenice, Yugoslavia
SOURCE: Zelezarski Zbornik (1973), 7(3), 131-9
CODEN: ZEZBBQ; ISSN: 0372-8633
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Slovenian
AB A review with 8 refs. is given on obtaining a **bright surface** of the products after heat treatment or annealing for cold-working in metal processing, especially in wire drawing.
CC 55-0 (Ferrous Metals and Alloys)
IT **Wire**
(**steel**, bright annealing for drawing of)

L88 ANSWER 42 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1973:87539 HCAPLUS
DOCUMENT NUMBER: 78:87539
TITLE: Annealing of coiled wire rod under a controlled atmosphere
AUTHOR(S): Schmidt, Th.
CORPORATE SOURCE: Ludwig-Ofag-Indugas, Essen, Fed. Rep. Ger.
SOURCE: Gaswaerme International (1972), 21(10), 460-4
CODEN: GWINAT; ISSN: 0020-9384
DOCUMENT TYPE: Journal
LANGUAGE: German
AB The reactions of steels of various C contents with a CO-containing gas atmospheric were studied in a wide temperature range using Fe-C-gas phase diagram. The combinations were determined of steels with different compns. which can and those which cannot be annealed together. The use of recarburizing and protective gases is discussed. Several types of furnaces are described, including continuous furnaces, which are used to anneal coiled wire rod with a **bright surface.**
CC 55-5 (Ferrous Metals and Alloys)
IT Protective atmospheres
(annealing in, of coiled **steel wire** rods for surface decarburization prevention)

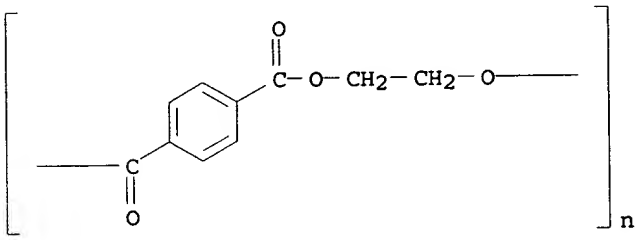
IT **Wire**
(**steel**, annealing of coiled rod for, in controlled atms.)

L88 ANSWER 43 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1972:463519 HCAPLUS
DOCUMENT NUMBER: 77:63519
TITLE: Poly(ethylene terephthalate) coating for **steel wire**
PATENT ASSIGNEE(S): N. V. Bekaert S. A.
SOURCE: Fr. Demande, 11 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2077389	A1	19711022	FR 1971-2230	1971 0122
FR 2077389	A5	19711022		
FR 2077389	B1	19731228		
NL 7001315	A	19710802	NL 1970-1315	1970 0129
NO 135740	B	19770214	NO 1970-4935	1970 1223
BE 761408	A2	19710616	BE 1971-2777	1971 0111
SE 368170	B	19740624	SE 1971-708	1971 0121
CA 956426	A1	19741022	CA 1971-103295	1971 0121
CH 530261	A	19721115	CH 1971-530261	1971 0128
ES 387739	A1	19730516	ES 1971-387739	1971 0128
AT 7100722	A	19750315	AT 1971-722	1971 0128
AT 326899	B	19760112		
BR 7100701	A0	19730510	BR 1971-701	1971 0129
GB 1322114	A	19730704	GB 1971-20657	1971 0419
PRIORITY APPLN. INFO.:			NL 1970-1315 A	1970 0129

AB **Steel wires** were coated with a crack resistant amorphous coating by preheating the wire to 150.deg., coating with **extruded** molten poly(ethylene terephthalate) [25038-59-9] at 260.deg., and cooling with water. When the **steel wire** was not preheated before coating, the crack resistance was low.

IT **25038-59-9**, uses and miscellaneous
RL: USES (Uses)
(**coating** with, on preheated **steel wires**, crack-resistant)
RN 25038-59-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IC B29D; B29F
CC 42-9 (Coatings, Inks, and Related Products)
ST crack resistance coating wire; polyethylene terephthalate **extrusion** wire
IT Coating process
(of preheated **steel wire**, with polyethylene terephthalate, crack-resistant)
IT **25038-59-9**, uses and miscellaneous
RL: USES (Uses)
(**coating** with, on preheated **steel wires**, crack-resistant)

L88 ANSWER 44 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1969:5038 HCAPLUS
DOCUMENT NUMBER: 70:5038
TITLE: Conversion **thermoplastic-polyester** to thermosetting resins
PATENT ASSIGNEE(S): Goodyear Tire and Rubber Co.
SOURCE: Brit., 4 pp.
CODEN: BRXXAA
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1127509		19680918	GB 1966-53396	1966 1129
DE 1595787			DE	
FR 1507122			FR	
US 3446758		19690527	US	1966 0112
PRIORITY APPLN. INFO.:			US	1966 0112

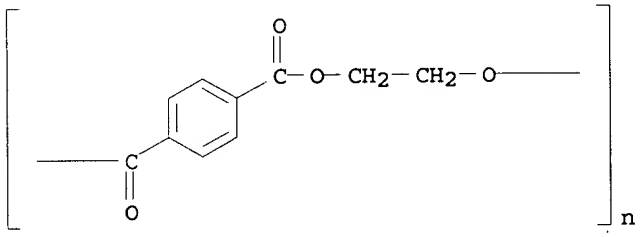
AB Low-mol. weight waste fractions and waste or defective batches from polycondensation processes are heated with polyols containing ≥3 OH groups, giving useful, thermosetting **polyester** resins. Thus, 38.4 parts low-mol.-weight poly(ethylene terephthalate), prepared from di-Me terephthalate and ethylene glycol (I) in the presence of Zn(OAc)2 and Sb2O3, was

mixed with 6.44 parts glycerol under N, stirred, and heated in a 280° bath, giving a **clear**, homogenous melt in <10 min. The melt was heated in a 245° bath while the pressure in the reactor was reduced to 1 mm. over 25 min. Under these conditions, the melt was polycondensed with the evolution of I, giving a **polyester** having a lowered intrinsic viscosity in .apprx.10 min. The **polyester** was rapidly cooled to 24°, ground, placed in a fluidized-bed apparatus, and fluidized at 24° with a stream of N. A **steel wire** was heated to 245°, inserted in the fluidized bed, and withdrawn when a **coating** of the **polyester** adhered to the wire. After 30 min. at 245° in a forced air oven, a crosslinked, insol., infusible **coating** with good elec.-insulating properties was obtained. A mixture of the cis and trans isomers of 1,4-bis(hydroxymethyl)cyclohexane was also used as a monomer.

IT **25038-59-9**, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinking of waste, with polyhydric alcs.)

RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IC C08G

CC 37 (Plastics Fabrication and Uses)

ST **polyesters** crosslinked elec **coatings**; **coatings** elec crosslinked **polyesters**; glyerol terephthalate polymers; terephthalate glyerol polymers; insulators elec polyterephthalate

IT **Polyesters**, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinking of waste, with polyhydric alcs.)

IT Crosslinking
(of **polyester** wastes with polyhydric alcs.)

IT 56-81-5, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinking of **polyester** wastes with dihydric alcs. and)

IT 105-08-8
RL: USES (Uses)
(crosslinking of **polyester** wastes with glycerol and)

IT **25038-59-9**, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinking of waste, with polyhydric alcs.)

L88 ANSWER 45 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1966:474055 HCAPLUS

DOCUMENT NUMBER: 65:74055

ORIGINAL REFERENCE NO.: 65:13863f-h

TITLE: Cables with bonded filamentary insulation

INVENTOR(S): Morieras, Gilbert

PATENT ASSIGNEE(S): Societe Rhodiaceta

SOURCE: 3 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

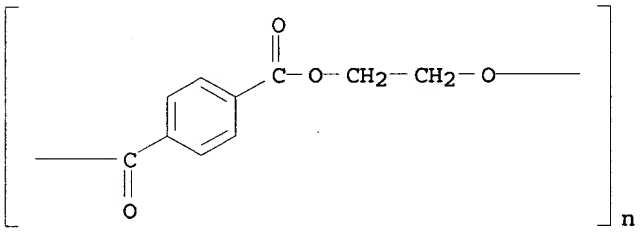
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3265809		19660809	US 1964-338570	1964 0120
PRIORITY APPLN. INFO.:			FR	1963 0129

AB The title cables consist of a core of elec. conductor or steel rope surrounded by parallel yarns of polyester and an overall fibrous braid all suitably bonded. E.g., 170 high-tenacity poly(ethylene terephthalate) yarns (1000 denier/200 filaments) (I) and a 7-wire **Cu** conductor (3-mm. overall diameter) are passed through a rubber latex compound containing fungicides and curatives. With a suitable perforated disk and sizing die, this assembly is formed into a circular cross section with the **Cu** strand in the center. Next, an overall braid of I is applied and the cable formed is pulled through a solution of a vulcanizable chlorosulfonated polyethylene compound and cured 5 min. at 50-130°. The diameter of the finished cable is 6.5 mm. A steel rope may be used instead of the **Cu** strand if the cable is used as a loadcarrying member.

IT **25038-59-9**, Terephthalic acid, polyethylene ester
(braided textiles and parallel yarns from cables with elec. insulators from)

RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



INCL 174121000

CC 47 (Textiles)

IT Rubber, substitute and synthetic
(Hypalon, textiles impregnated with, elec. insulators from, for cables and **coverings** for steelwire ropes)

IT Nylon
(as **covering** for **steel-wire** ropes)

IT Textiles
(cables and **steel-wire** ropes with elec. insulators or **coverings** from parallel yarns and braided)

IT Yarns
(cables and **steel-wire** ropes with elec. insulators or **coverings** from textile braids and parallel)

IT Ropes
(**steel-wire, coverings** for, from parallel yarns and braided textiles)

IT Rubber
(textiles **coated** or impregnated with, for elec. insulators for cables and **coverings** for steelwire rope)
IT **25038-59-9**, Terephthalic acid, polyethylene ester
(braided textiles and parallel yarns from cables with elec. insulators from)

L88 ANSWER 46 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1944:27030 HCAPLUS
DOCUMENT NUMBER: 38:27030
ORIGINAL REFERENCE NO.: 38:3944g-i
TITLE: Glass-processing **wire** and **steel** products
AUTHOR(S): Caugherty, John J.
SOURCE: Wire and Wire Products (1944), 19, 299-303
CODEN: WWPRAE; ISSN: 0043-6003
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB New methods for the elimination of acids in cleaning methods are used in hot-rolling, cold-drawing and galvanizing, and in heat-treatments such as annealing, or patenting, with deoxidation in one continuous operation. In passing cleaned wire through a bath of molten glass, the coating deposited on the steel surface provides a satisfactory insulation, since when the coating separates at temps. below oxidation temps. it removes any oxides formed with it; this produces a **bright** cleaned **surface**, heat-treated in the same operation. While at present the process is applied only to wire products it seems likely that all grades of strip, sheet and bar steel might be similarly treated. Rod rolling, galvanizing, annealing, patenting (spring steel), and Pb-coated stainless steel annealing are briefly considered.
CC 9 (Metallurgy and Metallography)
IT Galvanization
(glass-processing **steel** products and **wire** in)
IT Glass
(**steel** product and **wire** passage through molten)

L88 ANSWER 47 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1928:11429 HCAPLUS
DOCUMENT NUMBER: 22:11429
ORIGINAL REFERENCE NO.: 22:1374b-e
TITLE: The effects of polarization upon the **steel wire**-nitric acid model of nerve activity
AUTHOR(S): Bishop, G. H.
SOURCE: Journal of General Physiology (1927), 11, 159-74
CODEN: JGPLAD; ISSN: 0022-1295
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB In a short length of **steel wire** passivated in 65% HNO3 and observed under the influence of a polarization current, 80% of the total p. d. drop occurs at the anode and 20% at the cathode. The change from active to passive states as measured by p. d. change is very abrupt in comparison with the duration of activity. Duration of the refractory state (to stimuli) is decreased at the anode and increased at the cathode as in nerve. This fact is contrary to the view that reactivity after passivation results from partial reduction of an oxide layer. Soft Fe wire passivated by anodal polarization becomes repassivated after activation in acid of a concentration which fails to passivate it originally. It can be stimulated several times with

complete repassivation and with a very short refractory phase as compared with **steel wire.** Finally it becomes continuously active. The alternation between a dark brown oxide coat during activity and a clean, **bright surface** during passivation is very sharp in Fe wire. A passive **steel wire** in acid has many characteristics of an inert electrode like Pt; superimposed upon the primary passivation potential there is probably an oxidation-reduction potential equilibrium between the constituents of the solution The nerve-like reactivity of this system probably involves an alternation between two protective coatings of the **steel wire**: (1) a brown oxide coat received mechanically by the wire during activity, which may be removed by gas convection or rapid solution of the oxide in which case passivation does not take place; (2) a second coat of oxide may form under conditions of intense oxidation in the interstices of the first and cover the surface as the first coat dissolves off. This furnishes the protection for passivation which is followed by the attainment of electrode equilibrium with the solution

CC 11A (Biological Chemistry: General)

IT Nerves
(activity of, effects of polarization on **steel wire**-HNO3 model of)

L88 ANSWER 48 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1920:19590 HCAPLUS
DOCUMENT NUMBER: 14:19590
ORIGINAL REFERENCE NO.: 14:3682h-i,3683a-d
TITLE: The recovery of transmissivity in passive iron wires as a model of recovery processes in irritable living systems. I
AUTHOR(S): Lillie, Ralph S.
CORPORATE SOURCE: Clark Univ.
SOURCE: Journal of General Physiology (1920), 3, 107-28
CODEN: JGPLAD; ISSN: 0022-1295
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB The activation of passive iron wires immersed in solns. of HNO3 of a certain critical concentration is a temporary one followed immediately by a return to the passive state. When the activation is started at any region of a passive wire, it is transmitted rapidly along its whole course; each region as it becomes active, activates the adjoining area and then becomes passive again. In this behavior, the wire resembles such irritable and conducting living elements as a nerve fiber or muscle cell. As in the living system, the maintenance of chemical activity in a passive wire immersed in sufficiently strong HNO3 requires a constant repetition of stimulation, in this case by an activating substance like Zn. The analogy of this behavior to the excitation process in irritable living tissues is discussed at some length. For the expts. detailed in this article, music **steel wires** were used. They were allowed to react in 1.2 sp. gr. HNO3 for 15 see., then passivated by placing in HNO3 of 1.42 sp. gr. The passive **wires** were then **steel**-bright and underwent no further change if kept in dilute HNO3. If activated by touching with Zn or scraping with glass, there was an immediate darkening at the **bright surface**, followed by active effervescence which spread rapidly along the wire. A completely transmissive wire reacted as a whole in a definite manner, independent of the mode of activation, but dependent on the concentration of acid and the temperature The reaction continued indefinitely in acid of 1.2 sp. gr. or below, but in stronger acid came rapidly to rest and passivity was regained. The duration of the local reaction in this case varied with the concentration of acid. After the return of passivity, the wire was more positive than

before by 0.01-0.02 volt. The distance activation, transmitted along a wire, depended upon the time interval between the new activation and the previous activation. With acid of 65 volume % and a temperature of 20-21°, transmission for an indefinite distance was accomplished after a 4-min. interval. For stronger acid the time increased rapidly with increasing concentration At a temperature of 3° recovery of transmission after activation was 4-5 times slower than at 20°.

CC 11A (Biological Chemistry: General)

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